

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ON SEMICONDUCTOR CORP. and)	
SEMICONDUCTOR COMPONENTS)	
INDUSTRIES, LLC,)	
)	
Plaintiffs,)	Civil Action No. 07-449 (JJF)
v.)	
)	
SAMSUNG ELECTRONICS CO., LTD.,)	
SAMSUNG ELECTRONICS AMERICA, INC.,)	
SAMSUNG TELECOMMUNICATIONS)	
AMERICA GENERAL, L.L.C.,)	
SAMSUNG SEMICONDUCTOR, INC., and)	
SAMSUNG AUSTIN SEMICONDUCTOR L.L.C.,)	
)	
Defendants.)	
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SAMSUNG ELECTRONICS CO., LTD.,)	
SAMSUNG ELECTRONICS AMERICA, INC.,)	
SAMSUNG TELECOMMUNICATIONS)	
AMERICA GENERAL, L.L.C.,)	
SAMSUNG SEMICONDUCTOR, INC., and)	
SAMSUNG AUSTIN SEMICONDUCTOR L.L.C.,)	
)	
Plaintiffs,)	Civil Action No. 06-720 (JJF)
v.)	
)	
ON SEMICONDUCTOR CORP. and)	
SEMICONDUCTOR COMPONENTS)	
INDUSTRIES, LLC,)	
)	
Defendants.)	

DECLARATION OF RICHARD J. BAUER
IN SUPPORT OF ON SEMICONDUCTOR CORP. AND SEMICONDUCTOR
COMPONENTS INDUSTRIES, LLC'S MOTION TO COMPEL

I, Richard J. Bauer, am an associate with the law firm of Morris, Nichols, Arsht & Tunnell, LLP. I am one of the attorneys representing ON Semiconductor Corp. and Semiconductor Components Industries, LLC (collectively, "ON Semiconductor") in the current litigation. I hereby declare as follows:

1. Attached as Exhibit 1 is a true and correct copy of Samsung's Objections and Responses to ON Semiconductor's First Set of Requests for Production of Documents and Things, dated May 2, 2007;

2. Attached as Exhibit 2 is a true and correct copy of Samsung's Objections to ON Semiconductor's Second Set of Requests for Production of Documents and Things, dated June 7, 2007;

3. Attached as Exhibit 3 is a true and correct copy of Behrooz Shariati's email to James Marina, dated January 4, 2008;

4. Attached as Exhibit 4 is a true and correct copy of Behrooz Shariati's email to James Marina, dated January 9, 2008;

5. Attached as Exhibit 5 is a true and correct copy of Guadalupe Garcia's letter to James Marina, dated January 23, 2008;

6. Attached as Exhibit 6 is a true and correct copy of Jennifer Schmidt's letter to Guadalupe Garcia, dated January 30, 2008;

7. Attached as Exhibit 7 is a true and correct copy of Defendants Response to Plaintiffs' First Set of Interrogatories (Nos. 1-13), dated May 24, 2007;

8. Attached as Exhibit 8 is a true and correct copy of Guadalupe Garcia's letter to Jennifer Schmidt, dated January 30, 2008;

9. Attached as Exhibit 9 is a true and correct copy of Cora Schmid's letter to Jennifer Schmidt, dated January 31, 2008;

10. Attached as Exhibit 10 is a true and correct copy of the Order in ProMOS Techs. Inc., v. Freescale Semiconductor, Inc., C.A. No. 06-788 JJF, dated October 31, 2007;

11. Attached as Exhibit 11 is a true and correct copy of Samsung's Objections and Responses to ON Semiconductor's First Set of Interrogatories to Plaintiff, dated May 2, 2007;

I declare under penalty of perjury that the foregoing is true and correct.

February 7, 2008.

/s/ Richard J. Bauer (#4828)

Richard J. Bauer (#4828)

1450691

CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that on February 7, 2008I electronically filed the foregoing with the Clerk of the Court using CM/ECF, which will send notification of such filing(s) to the following:

John W. Shaw
Andrew A. Lundgren

I also certify that copies were caused to be served on February 7, 2008 upon the following in the manner indicated:

BY HAND AND EMAIL

John W. Shaw
Andrew A. Lundgren
YOUNG, CONAWAY, STARGATT & TAYLOR LLP
The Brandywine Building
1000 West Street
17th Floor
Wilmington, DE 19801

BY EMAIL

John M. Desmarais
James E. Marina
KIRKLAND & ELLIS
153 East 53rd Street
New York, NY 10022

/s/ Richard J. Bauer (#4828)

Richard J. Bauer (#4828)

EXHIBIT 1

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

SAMSUNG ELECTRONICS CO., LTD.,
SAMSUNG ELECTRONICS AMERICA, INC.,
SAMSUNG TELECOMMUNICATIONS
AMERICA GENERAL, L.L.C.,
SAMSUNG SEMICONDUCTOR, INC., and
SAMSUNG AUSTIN SEMICONDUCTOR L.L.C.,

Plaintiffs,

v.

ON SEMICONDUCTOR CORP.

and

SEMICONDUCTOR COMPONENTS
INDUSTRIES, LLC,

Defendants.

Civil Action No. 06-CV-0720 (***)

**PLAINTIFFS' OBJECTIONS AND RESPONSES TO DEFENDANTS' FIRST SET OF
REQUESTS FOR PRODUCTION OF DOCUMENTS AND THINGS TO SAMSUNG**

Pursuant to Rules 26 and 34 of the Federal Rules of Civil Procedure, Plaintiffs Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., Samsung Telecommunications America General, LLC, Samsung Semiconductor, Inc., and Samsung Austin Semiconductor, LLC (collectively, "Samsung"), make the following objections and responses to Defendants' First Set of Requests for Production of Documents and Things to Samsung. Samsung reserves the right to supplement or amend these objections and responses to the extent allowed by the Federal Rules of Civil Procedure and the Local Rules of this Court.

GENERAL OBJECTIONS

Samsung makes the following general objections to Defendants' First Set of Requests for Production of Documents and Things, which apply to each request regardless of whether the general objections are specifically incorporated into the specific objections below.

1. Samsung objects to each request to the extent it seeks information that is protected from discovery by the attorney-client privilege or the attorney work-product doctrine, or that is otherwise protected from disclosure under the Federal Rules of Civil Procedure, the Federal Rules of Evidence, or the relevant statutory or case law.
2. Samsung objects to each request to the extent it seeks to impose upon Samsung duties and/or responsibilities greater than those imposed by the Federal Rules of Civil Procedure, the Local Rules of this Court, any applicable orders of this Court, or any stipulation or agreement of the parties.
3. Samsung objects to Defendants' definitions and instructions to the extent they seek to impose upon Samsung duties and/or responsibilities greater than those imposed by the Federal Rules of Civil Procedure, the Local Rules of this Court, any applicable orders of this Court, or any stipulation or agreement of the parties. Samsung further objects to Defendants' definitions and instructions to the extent they purport to alter the plain meaning and/or scope of any specific request, on the ground that such alteration renders the request vague, ambiguous, overbroad, and uncertain.
4. Samsung objects to Defendants' definitions of "Samsung," "you," and "your" to the extent that those definitions include persons or entities other than Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., Samsung Telecommunications America General, LLC, Samsung Semiconductor, Inc., and Samsung Austin Semiconductor, LLC,

which are not parties to this action. Samsung further objects to Defendants' definitions of "Samsung," "you," and "your" to the extent Defendants' definitions improperly expand the scope of discovery by seeking information and documents that are not currently in the possession, custody, or control of Samsung Electronics Co., Ltd.; Samsung Electronics America, Inc.; Samsung Telecommunications America General, LLC; Samsung Semiconductor, Inc.; or Samsung Austin Semiconductor, LLC.

5. Samsung objects to Defendants' definition of "Samsung Products" to the extent that the definition inaccurately attributes technical properties to any Samsung product. Samsung further objects to Defendants' definition of "Samsung Products" as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that it seeks information that is not relevant to the products accused of infringement in this action. Samsung further objects to Defendants' definition of "Samsung Products" as vague, ambiguous, and confusing, to the extent that it fails to adequately define terms or fails to describe the information sought with reasonable particularity.
6. Samsung objects to each request, definition and instruction to the extent it seeks documents and things that do not exist or are not in Samsung's possession, custody, and control.
7. Samsung objects to each request to the extent it calls for confidential and/or proprietary information of Samsung prior to the entry of a suitable protective order by the Court.
8. Samsung objects to each request to the extent it calls for confidential and/or proprietary documents or information of any individual or entity that is not a party to this action.

9. Samsung objects to each request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the products accused of infringement in this action.
10. Samsung objects to each request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the relevant temporal or geographic scope of this matter.
11. Samsung objects to each request to the extent that it is premature at this early stage of litigation.
12. Samsung objects to each request to the extent it calls for information in the public domain and, therefore, of no greater burden for Defendants than Samsung to obtain.
13. Samsung objects to each request to the extent that it is vague, ambiguous, or confusing, by failing to adequately define terms or by failing to describe the information sought with reasonable particularity. Samsung further objects to each request to the extent it purports to attribute any special or unusual meaning to any terms or phrases.
14. Samsung objects to each request to the extent that it is duplicative of another request.
15. Samsung objects to each request to the extent that it seeks information that Samsung is not permitted to disclose pursuant to confidentiality obligations or agreements with third parties.
16. Samsung's discovery and investigation in connection with this case are continuing. As a result, Samsung's responses are limited to information obtained and reviewed to date, and

are given without prejudice to Samsung's right to amend or supplement its responses after considering information obtained or reviewed through further discovery or investigation.

SPECIFIC OBJECTIONS AND RESPONSES

REQUEST NO. 1:

DOCUMENTS AND THINGS sufficient to show SAMSUNG'S DOCUMENT retention AND destruction policies AND practices from 1991 to present, including retention OR destruction of DOCUMENTS OR files, including, but not limited to electronic data AND/OR media.

RESPONSE TO REQUEST NO. 1:

Samsung objects to this request as overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence to the extent it seeks production of documents outside the relevant timeframe of this action. Samsung further objects to this request as vague and ambiguous as to "sufficient to show." Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 2:

DOCUMENTS AND THINGS sufficient to describe the corporate structure, both inter- AND intra-entity AND including ownership AND control, of SAMSUNG, AND any corporate parents, subsidiaries, affiliates, predecessors OR successors thereof.

RESPONSE TO REQUEST NO. 2:

Samsung objects to this request as overbroad, unduly burdensome, irrelevant, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks

production of documents not relevant to any issue in this case. Samsung further objects to this request as overbroad, unduly burdensome, irrelevant, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of documents outside the relevant timeframe of this action. Samsung further objects to this request as vague and ambiguous as to “sufficient to describe,” “corporate structure,” and “inter- AND intra-entity.”

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 3:

From 2000 to the present, organizational charts sufficient to identify SAMSUNG’S personnel involved with research AND development, testing, design, patent activities, management, finance, engineering, production, manufacturing, licensing, sales AND marketing, technical services, AND distribution.

RESPONSE TO REQUEST NO. 3:

Samsung objects to this request as vague and ambiguous as to “organizational charts,” “sufficient to identify,” “patent activities,” and “technical services.” Samsung further objects to this request as overbroad, unduly burdensome, irrelevant, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of documents not relevant to any issue in this case. Samsung further objects to this request as overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence to the extent it seeks production of documents outside the relevant timeframe of this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 4:

ALL DOCUMENTS CONCERNING SAMSUNG'S pre-filing investigation for ALL claims brought by SAMSUNG against ON Semiconductor in this action.

RESPONSE TO REQUEST NO. 4:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of "ALL DOCUMENTS CONCERNING." Samsung further objects to this request as seeking production of documents protected from discovery by the attorney-client privilege and attorney work-product doctrine.

REQUEST NO. 5:

ALL DOCUMENTS OR THINGS CONCERNING any of the allegations in SAMSUNG'S complaint.

RESPONSE TO REQUEST NO. 5:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of "ALL DOCUMENTS OR THINGS CONCERNING any of the allegations." Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request to the extent it is duplicative of other requests.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 6:

ALL DOCUMENTS AND THINGS identified in SAMSUNG'S initial disclosures.

RESPONSE TO REQUEST NO. 6:

Subject to its general objections, Samsung will produce responsive, non-privileged documents.

REQUEST NO. 7:

ALL DOCUMENTS identified OR relied upon in response to Defendants First Set of Interrogatories served herewith.

RESPONSE TO REQUEST NO. 7:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of "ALL DOCUMENTS." Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request to the extent it is duplicative of other requests.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 8:

ALL DOCUMENTS constituting OR CONCERNING internal SAMSUNG COMMUNICATIONS AND/or COMMUNICATIONS between SAMSUNG AND any other party regarding this lawsuit.

RESPONSE TO REQUEST NO. 8:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it

seeks production of “ALL DOCUMENTS constituting OR CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as vague and ambiguous as to “any other party.” Samsung further objects to this request to the extent it seeks information in the possession, custody, or control of third parties.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 9:

ALL DOCUMENTS CONCERNING internal SAMSUNG COMMUNICATIONS OR COMMUNICATIONS between SAMSUNG AND any party other than SAMSUNG in which ON Semiconductor OR any of the ON SEMICONDUCTOR PATENTS are referenced OR discussed.

RESPONSE TO REQUEST NO. 9:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as vague and ambiguous as to “internal” and “any party other than SAMSUNG.” Samsung further objects to this request to the extent it seeks information in the possession, custody, or control of third parties. Samsung further objects to this request to the extent it seeks documents not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 10:

ALL DOCUMENTS CONCERNING correspondence of the named inventors who are employed OR no longer employed by SAMSUNG regarding the SAMSUNG PATENT, the subject matter therein, OR this lawsuit.

RESPONSE TO REQUEST NO. 10:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of "ALL DOCUMENTS CONCERNING." Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as vague and ambiguous as to "correspondence of" and "regarding the SAMSUNG PATENT, the subject matter therein, OR this lawsuit." Samsung further objects to this request to the extent it seeks information in the possession, custody, or control of third parties. Samsung further objects to this request to the extent it seeks documents not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 11:

ALL DOCUMENTS that YOU have shown OR otherwise made available to any expert YOU expect to call as a witness in connection with this lawsuit AND EACH DOCUMENT that such expert has shown OR transmitted to SAMSUNG.

RESPONSE TO REQUEST NO. 11:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of "ALL DOCUMENTS." Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as seeking premature expert discovery.

REQUEST NO. 12:

ALL DOCUMENTS reviewed in connection with this lawsuit by any expert YOU expect to call as a witness in connection with this lawsuit.

RESPONSE TO REQUEST NO. 12:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of "ALL DOCUMENTS." Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as seeking premature expert discovery.

REQUEST NO. 13:

ALL other DOCUMENTS not previously produced OR identified that YOU intend to rely upon in support of YOUR claims at the trial.

RESPONSE TO REQUEST NO. 13:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of "ALL other DOCUMENTS." Samsung further objects to this request to the

extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as premature.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 14:

ALL DOCUMENTS AND THINGS CONCERNING the ON SEMICONDUCTOR PATENTS.

RESPONSE TO REQUEST NO. 14:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 15:

ALL DOCUMENTS AND THINGS CONCERNING any searches, investigations OR evaluations as to the novelty, patentability, validity, enforceability, scope AND/or infringement of the ON SEMICONDUCTOR PATENTS including but not limited to, ALL DOCUMENTS that CONCERN any written OR oral opinion, evaluation OR analysis as to the novelty, patentability, validity, enforceability, scope AND/or infringement of the ON SEMICONDUCTOR PATENTS.

RESPONSE TO REQUEST NO. 15:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS CONCERNING.” Samsung further objects to this request as seeking documents protected from discovery by the attorney-client privilege and attorney work-product doctrine.

REQUEST NO. 16:

ALL opinions, reports AND evaluations, AND ALL DOCUMENTS CONCERNING OR embodying opinions (whether written OR oral), including those by attorneys, CONCERNING the alleged infringement, validity, AND/or unenforceability of the ON SEMICONDUCTOR PATENTS OR any RELATED PATENT OR RELATED APPLICATION.

RESPONSE TO REQUEST NO. 16:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL opinions, reports AND evaluations, AND ALL DOCUMENTS CONCERNING.” Samsung further objects to this request as seeking documents protected from discovery by the attorney-client privilege and attorney work-product doctrine.

REQUEST NO. 17:

ALL DOCUMENTS CONCERNING any formal OR informal opinions, analyses, tests, OR studies CONCERNING whether SAMSUNG PRODUCTS infringe any of the ON SEMICONDUCTOR PATENTS.

RESPONSE TO REQUEST NO. 17:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this

request as seeking documents protected from discovery by the attorney-client privilege and attorney work-product doctrine.

REQUEST NO. 18:

ALL DOCUMENTS that have ever been considered OR evaluated by OR for YOU CONCERNING patentability, validity, OR enforceability of the ON SEMICONDUCTOR PATENTS, including any evaluation OR analysis of the patentability of the ON SEMICONDUCTOR PATENTS.

RESPONSE TO REQUEST NO. 18:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS that have ever been considered OR evaluated.”

Samsung further objects to this request as seeking documents protected from discovery by the attorney-client privilege and attorney work-product doctrine.

REQUEST NO. 19:

ALL DOCUMENTS AND THINGS that SAMSUNG contends are relevant to the construction OR interpretation of the asserted claims of the ON SEMICONDUCTOR PATENTS, including ALL DOCUMENTS AND THINGS that support OR refute Defendants’ AND SAMSUNG’S proposed constructions of the asserted claims.

RESPONSE TO REQUEST NO. 19:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS.” Samsung further objects to this request as premature to the extent that it seeks Samsung’s claim construction positions prior to the date to be scheduled by the Court. Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 20:

ALL DOCUMENTS AND THINGS that demonstrate the level of ordinary skill in the art for EACH claim of the ON SEMICONDUCTOR PATENTS.

RESPONSE TO REQUEST NO. 20:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS.” Samsung further objects to this request as seeking premature expert discovery. Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 21:

ALL DOCUMENTS AND THINGS that support OR contradict YOUR contention that the claims in the ON SEMICONDUCTOR PATENTS are invalid because they fail to satisfy the conditions for patentability specified in 35 U.S.C. § 102.

RESPONSE TO REQUEST NO. 21:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-

client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as vague and ambiguous as to “support OR contradict.” Samsung further objects to this request as premature at this early stage of discovery.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 22:

ALL DOCUMENTS AND THINGS that support OR contradict YOUR contention that the claims in the ON SEMICONDUCTOR PATENTS are invalid because they fail to satisfy the conditions for patentability specified in 35 U.S.C. § 103.

RESPONSE TO REQUEST NO. 22:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as vague and ambiguous as to “support OR contradict.” Samsung further objects to this request as premature at this early stage of discovery.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 23:

ALL DOCUMENTS AND THINGS that support OR contradict YOUR contention that the claims in the ON SEMICONDUCTOR PATENTS are invalid because they fail to satisfy the conditions for patentability specified in 35 U.S.C. § 112.

RESPONSE TO REQUEST NO. 23:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as vague and ambiguous as to “support OR contradict.” Samsung further objects to this request as premature at this early stage of discovery.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 24:

ALL DOCUMENTS AND THINGS that support OR contradict YOUR contention that the ON SEMICONDUCTOR PATENTS are unenforceable against YOU pursuant to the doctrine of laches, estoppel, waiver AND/or acquiescence.

RESPONSE TO REQUEST NO. 24:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as vague and ambiguous as to “support OR contradict.” Samsung further objects to this request as premature at this early stage of discovery.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 25:

ALL DOCUMENTS AND THINGS that support OR contradict YOUR contention that YOU have not INFRINGED, AND are not INFRINGING the ON SEMICONDUCTOR PATENTS.

RESPONSE TO REQUEST NO. 25:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of "ALL DOCUMENTS AND THINGS." Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as vague and ambiguous as to "support OR contradict." Samsung further objects to this request as premature at this early stage of discovery.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 26:

ALL DOCUMENTS CONCERNING OR evidencing YOUR first knowledge OR awareness of the ON SEMICONDUCTOR PATENTS, including ALL DOCUMENTS describing the circumstances in which YOU first learned of the ON SEMICONDUCTOR PATENTS.

RESPONSE TO REQUEST NO. 26:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it

seeks production of “ALL DOCUMENTS CONCERNING OR evidencing.” Samsung further objects to this request as vague and ambiguous as to “CONCERNING OR evidencing,” “first knowledge OR awareness,” and “describing the circumstances.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 27:

ALL DOCUMENTS AND THINGS CONCERNING any patents OR patent applications RELATED to the SAMSUNG PRODUCTS, including but not limited to:

- a. ALL patents;
- b. ALL patent applications;
- c. The complete prosecution files of ALL patent applications;
- d. ALL DOCUMENTS that were reviewed in connection with, OR that provide any part of the basis for, the preparation of the patent application;
- e. ALL DOCUMENTS that constitute OR CONCERN COMMUNICATIONS OR other DOCUMENTS exchanged between SAMSUNG AND any patent attorney OR agent CONCERNING the application OR prosecution of the applications;
- f. ALL drafts of the applications OR papers filed during prosecution of the patent applications; AND
- g. ALL publications, patents, THINGS, public uses, AND offers for sale located OR identified in connection with any investigation regarding the patentability, validity, OR enforceability of the patent OR the subject matter claimed in the patent OR patent applications.

RESPONSE TO REQUEST NO. 27:

Samsung objects to this request as seeking documents not relevant to any issue in this case, rendering the request overbroad, unduly burdensome, and not reasonably calculated to lead

to the discovery of admissible evidence. Samsung further objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

REQUEST NO. 28:

ALL DOCUMENTS sufficient to identify ALL persons involved in the prosecution of any patents OR patent applications CONCERNING the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 28:

Samsung objects to this request as seeking documents not relevant to any issue in this case. Samsung further objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as vague and ambiguous as to “sufficient to identify” and “involved.”

REQUEST NO. 29:

ALL DOCUMENTS CONCERNING the scope, validity, infringement, non-infringement, enforceability, OR unenforceability of any patents OR patent applications CONCERNING the SAMSUNG PRODUCTS, including, but not limited to, any opinion of counsel.

RESPONSE TO REQUEST NO. 29:

Samsung objects to this request as seeking documents not relevant to any issue in this case, rendering the request overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Samsung further objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

REQUEST NO. 30:

ALL DOCUMENTS AND THINGS that form the basis for, in whole OR in part, OR that were considered in connection with, any opinion of counsel CONCERNING the scope, validity, infringement, non-infringement, enforceability, OR unenforceability of ALL patents OR patent applications CONCERNING the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 30:

Samsung objects to this request as seeking documents not relevant to any issue in this case, rendering the request overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Samsung further objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS that form the basis for, in whole OR in part, OR that were considered in connection with.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

REQUEST NO. 31:

ALL DOCUMENTS CONCERNING any patentability OR prior art investigation, search, study, evaluation, OR opinion of any patent OR patent applications CONCERNING the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 31:

Samsung objects to this request as seeking documents not relevant to any issue in this case, rendering the request overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Samsung further objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

REQUEST NO. 32:

ALL DOCUMENTS AND THINGS CONCERNING the conception, development, testing, OR reduction to practice of the SAMSUNG PRODUCTS, including, but not limited to, laboratory notebooks, prototypes, AND invention disclosures.

RESPONSE TO REQUEST NO. 32:

Samsung objects to this request as seeking documents not relevant to any issue in this case, rendering the request overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Samsung further objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS CONCERNING.” Samsung further objects to this request to the extent it seeks production of

documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

REQUEST NO. 33:

ALL DOCUMENTS sufficient to identify ALL persons who participated in the development OR testing of the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 33:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS.” Samsung further objects to this request as vague and ambiguous as to “sufficient to identify.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the product features accused in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 34:

ALL prototypes created in connection with the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 34:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL prototypes.” Samsung further objects to this request as overbroad, unduly burdensome, irrelevant, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of documents not relevant to any issue in this case. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the product features accused in this action.

REQUEST NO. 35:

ALL publications CONCERNING the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 35:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL publications CONCERNING.” Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the product features accused in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 36:

ALL DOCUMENTS CONCERNING the first sale OR offer for sale of ALL SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 36:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of "ALL DOCUMENTS CONCERNING." Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the product features accused in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 37:

ALL marketing, promotional, AND sales DOCUMENTS CONCERNING the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 37:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of "ALL marketing, promotional, AND sales DOCUMENTS CONCERNING."

Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the product features accused in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 38:

ALL DOCUMENTS CONCERNING presentations, demonstrations, proposals, AND other COMMUNICATIONS to any third party regarding the SAMSUNG PRODUCTS, including, but not limited to, sales AND marketing presentations AND product demonstrations.

RESPONSE TO REQUEST NO. 38:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the relevant temporal or geographic scope of this matter. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to

the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the product features accused in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 39:

ALL DOCUMENTS constituting OR CONCERNING any agreements CONCERNING the SAMSUNG PRODUCTS OR any patents OR patent applications CONCERNING the SAMSUNG PRODUCTS, including, but not limited to, sales agreements.

RESPONSE TO REQUEST NO. 39:

Samsung objects to this request as seeking irrelevant information. Samsung further objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS constituting OR CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the relevant temporal or geographic scope of this matter. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the product features accused in this action.

REQUEST NO. 40:

ALL DOCUMENTS sent to OR received from any licensee OR potential licensee CONCERNING the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 40:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS.” Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the relevant temporal or geographic scope of this matter. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the product features accused in this action. Samsung further objects to this request as vague and ambiguous as to “potential licensee.”

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 41:

ALL DOCUMENTS CONCERNING any monetary evaluation of the SAMSUNG PRODUCTS, any patents OR patent applications related thereto, including, but not limited to, any determination of an appropriate royalty rate for the invention OR products.

RESPONSE TO REQUEST NO. 41:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the product features accused in this action. Samsung further objects to this request as vague and ambiguous as to “monetary evaluation.”

REQUEST NO. 42:

ALL DOCUMENTS CONCERNING any legal OR administrative proceedings involving the SAMSUNG PRODUCTS, including without limitation, pleadings, transcripts of hearings, depositions, trial transcripts, settlement agreements, AND any DOCUMENTS constituting exhibits offered OR admitted in any such pleading.

RESPONSE TO REQUEST NO. 42:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks

information unrelated to the patents asserted or the product features accused in this action.

Samsung further objects to this request as vague and ambiguous as to “legal OR administrative proceedings.”

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 43:

ALL DOCUMENTS CONCERNING OR comprising any license agreements CONCERNING the SAMSUNG PRODUCTS OR any technology CONCERNING the SAMSUNG PRODUCTS, including licenses granted OR obtained as a result of the settlement of litigation.

RESPONSE TO REQUEST NO. 43:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the product features accused in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 44:

ALL DOCUMENTS sufficient to show the total monthly gross AND net sales (both in units AND in dollars) for EACH of the SAMSUNG PRODUCTS made, sold, AND/or offered for sale by SAMSUNG OR that SAMSUNG has licensed OR authorized a third party to sell.

RESPONSE TO REQUEST NO. 44:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of "ALL DOCUMENTS." Samsung further objects to this request as vague and ambiguous as to "sufficient to show." Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the relevant temporal or geographic scope of this matter. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the product features accused in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 45:

ALL DOCUMENTS sufficient to show the monthly profits for EACH of the SAMSUNG PRODUCTS made, sold, AND/or offered for sale by SAMSUNG OR that SAMSUNG has licensed OR authorized a third party to sell.

RESPONSE TO REQUEST NO. 45:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS.” Samsung further objects to this request as vague and ambiguous as to “sufficient to show.” Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the relevant temporal or geographic scope of this matter. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the product features accused in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 46:

ALL DOCUMENTS sufficient to show any anticipated profits OR sales for EACH of the SAMSUNG PRODUCTS made, sold, AND/or offered for sale by SAMSUNG OR that SAMSUNG has licensed OR authorized a third party to sell, including ALL forecasts AND projections.

RESPONSE TO REQUEST NO. 46:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS.” Samsung further objects to this request as vague

and ambiguous as to “sufficient to show” and “anticipated profits or sales.” Samsung further objects to this request as overbroad, unduly burdensome, irrelevant, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of documents not relevant to any issue in this case. Samsung further objects to this request to the extent that it seeks information that Samsung is not permitted to disclose pursuant to confidentiality obligations or agreements with third parties. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the product features accused in this action.

REQUEST NO. 47:

ALL DOCUMENTS sufficient to show the market share for EACH of the SAMSUNG PRODUCTS made, sold, AND/or offered for sale by SAMSUNG OR that SAMSUNG has licensed OR authorized a third party to sell.

RESPONSE TO REQUEST NO. 47:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS.” Samsung further objects to this request as vague and ambiguous as to “sufficient to show” and “market share.” Samsung further objects to this request as overbroad, unduly burdensome, irrelevant, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of documents not relevant to any issue in this case. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the

request seeks information unrelated to the relevant temporal or geographic scope of this matter. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the product features accused in this action.

REQUEST NO. 48:

ALL DOCUMENTS CONCERNING the scope of the SAMSUNG PATENT.

RESPONSE TO REQUEST NO. 48:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request as vague and ambiguous as to “scope.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 49:

ALL DOCUMENTS AND THINGS that SAMSUNG contends are relevant to the construction OR interpretation of the asserted claims of the SAMSUNG PATENT, including ALL DOCUMENTS AND THINGS that support OR refute Defendants’ AND SAMSUNG’S proposed constructions of the asserted claims.

RESPONSE TO REQUEST NO. 49:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it

seeks production of “ALL DOCUMENTS AND THINGS.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as vague and ambiguous as to “relevant to the construction OR interpretation.” Samsung further objects to this request as premature.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 50:

ALL DOCUMENTS AND THINGS that demonstrate the level of ordinary skill in the art for EACH claim of the SAMSUNG PATENT.

RESPONSE TO REQUEST NO. 50:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as vague and ambiguous as to “demonstrate the level of ordinary skill in the art.” Samsung further objects to this response as premature.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 51:

ALL DOCUMENTS AND THINGS CONCERNING the preparation AND prosecution of the SAMSUNG PATENT, RELATED PATENTS, AND RELATED APPLICATIONS, including the file histories of the SAMSUNG PATENT, RELATED PATENTS, AND RELATED APPLICATIONS.

RESPONSE TO REQUEST NO. 51:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the product features accused in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 52:

ALL invention disclosure forms CONCERNING the SAMSUNG PATENT.

RESPONSE TO REQUEST NO. 52:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it

seeks production of “ALL invention disclosure forms CONCERNING.” Samsung further objects to this request as seeking production of privileged information.

REQUEST NO. 53:

ALL DOCUMENTS authored, written, OR published by OR under the name of the named inventors of the SAMSUNG PATENT with respect to the technological field of the SAMSUNG PATENT, including but not limited to correspondence, technical publications, journal articles, presentations, studies, theses, academic papers, research papers, technical analyses, AND inventor notebooks.

RESPONSE TO REQUEST NO. 53:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS.” Samsung further objects to this request as vague and ambiguous as to “technological field” and “technical analyses.” Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the product features accused in this action. Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as unduly burdensome to the extent it seeks publicly available information.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 54:

ALL DOCUMENTS AND THINGS CONCERNING the named inventors of the SAMSUNG PATENT in the technological fields of the SAMSUNG PATENT.

RESPONSE TO REQUEST NO. 54:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS CONCERNING.” Samsung further objects to this request as vague and ambiguous as to “technological fields.” Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the product features accused in this action. Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request to the extent it seeks documents not relevant to any issue in this case, rendering the request overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 55:

ALL DOCUMENTS CONCERNING conception of EACH AND every invention claimed in the SAMSUNG PATENT.

RESPONSE TO REQUEST NO. 55:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request to the extent it seeks documents not relevant to any issue in this case, rendering the request overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 56:

ALL DOCUMENTS CONCERNING the alleged reduction to practice, whether actual OR constructive, of EACH AND every invention claimed in the SAMSUNG PATENT.

RESPONSE TO REQUEST NO. 56:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request to the extent it seeks irrelevant information and documents not relevant to any issue in this case, rendering the request overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 57:

ALL DOCUMENTS AND THINGS CONCERNING EACH AND every instance in which any person has contended that any claim of the SAMSUNG PATENT AND/or RELATED PATENTS is invalid, unenforceable, void, OR not infringed.

RESPONSE TO REQUEST NO. 57:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of "ALL DOCUMENTS CONCERNING." Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 58:

ALL DOCUMENTS AND THINGS CONCERNING EACH AND every instance in which any person has contended that any claim of the SAMSUNG PATENT AND/or RELATED PATENTS is actually, potentially, OR allegedly infringed.

RESPONSE TO REQUEST NO. 58:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 59:

ALL DOCUMENTS CONCERNING any lawsuit, ITC action, interference, arbitration, mediation, OR any other dispute OR adversarial proceeding involving the SAMSUNG PATENT OR RELATED PATENTS, including without limitation:

- a. ALL deposition transcripts (with exhibits);
- b. ALL discovery, including, without limitation, requests, requests for admissions, requests for production, expert witness discovery AND witness lists;
- c. ALL responses to discovery listed in (b) above, including, without limitation, ALL DOCUMENTS produced in response to the discovery requests;
- d. ALL expert reports;
- e. ALL infringement contentions AND invalidity contentions, as well as any technical DOCUMENTS AND prior art references referenced therein;
- f. ALL transcripts of hearings OR other court proceedings;

- g. ALL court orders;
- h. ALL claim charts; AND
- i. ALL DOCUMENTS produced in contemplation of settlement.

RESPONSE TO REQUEST NO. 59:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 60:

ALL DOCUMENTS AND THINGS CONCERNING ALL litigation, prosecution, OR other administrative OR legal proceedings worldwide, completed OR ongoing, CONCERNING the SAMSUNG PATENT, RELATED PATENTS, OR RELATED APPLICATIONS.

RESPONSE TO REQUEST NO. 60:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-

client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted in this action. Samsung further objects to this request as vague and ambiguous as to “administrative OR legal proceedings.”

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 61:

For EACH device OR method that, to SAMSUNG’S knowledge, actually OR allegedly practices OR practiced any of the claimed inventions from the SAMSUNG PATENT, ALL DOCUMENTS CONCERNING how EACH such device OR method actually OR allegedly practices EACH of the claimed inventions from the SAMSUNG PATENT.

RESPONSE TO REQUEST NO. 61:

Samsung objects to this request as seeking documents not relevant to any issue in this case, rendering the request overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Samsung further objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

REQUEST NO. 62:

ALL prior art of which SAMSUNG is aware to the SAMSUNG PATENT, RELATED PATENTS, AND RELATED APPLICATIONS.

RESPONSE TO REQUEST NO. 62:

Samsung objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted in this action. Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 63:

ALL DOCUMENTS AND THINGS that anyone ever contended were prior art to the SAMSUNG PATENT, RELATED PATENTS, AND RELATED APPLICATIONS.

RESPONSE TO REQUEST NO. 63:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of "ALL DOCUMENTS AND THINGS." Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably

calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 64:

ALL DOCUMENTS AND THINGS CONCERNING any AND ALL searches for Prior Art with respect to the SAMSUNG PATENT, RELATED PATENTS, AND RELATED APPLICATIONS.

RESPONSE TO REQUEST NO. 64:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 65:

DOCUMENTS sufficient to show the first sale of EACH device that practices any of the claimed inventions from the SAMSUNG PATENT, RELATED PATENTS, AND RELATED APPLICATIONS.

RESPONSE TO REQUEST NO. 65:

Samsung objects to this request as vague and ambiguous as to “sufficient to show.”

Samsung further objects to this request to the extent it seeks documents not relevant to any issue in this case, rendering the request overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Samsung further objects to this request to the extent it is asking Samsung to form contentions concerning whether any of its products fall within the scope of the claims of the ‘177 patent.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 66:

DOCUMENTS sufficient to show the first offer for sale of EACH device that practices any of the claimed inventions from the SAMSUNG PATENT, RELATED PATENTS, AND RELATED APPLICATIONS of which SAMSUNG is aware.

RESPONSE TO REQUEST NO. 66:

Samsung objects to this request as vague and ambiguous as to “sufficient to show” and “first offer for sale.” Samsung further objects to this request to the extent it seeks documents not relevant to any issue in this case, rendering the request overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Samsung further objects to this request to the extent it is asking Samsung to form contentions concerning whether any of its products fall within the scope of the claims of the ‘177 patent.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 67:

DOCUMENTS sufficient to show the first public use of EACH device OR method that practices any of the claimed inventions from the SAMSUNG PATENT, RELATED PATENTS, AND RELATED APPLICATIONS of which SAMSUNG is aware.

RESPONSE TO REQUEST NO. 67:

Samsung objects to this request as vague and ambiguous as to “sufficient to show” and “first public use.” Samsung further objects to this request to the extent it seeks documents not relevant to any issue in this case, rendering the request overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Samsung further objects to this request to the extent it is asking Samsung to form contentions concerning whether any of its products fall within the scope of the claims of the ‘177 patent.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 68:

DOCUMENTS sufficient to show the first public disclosure of EACH device that practices any of the claimed inventions from the SAMSUNG PATENT, RELATED PATENTS, AND RELATED APPLICATIONS of which SAMSUNG is aware.

RESPONSE TO REQUEST NO. 68:

Samsung objects to this request as vague and ambiguous as to “sufficient to show” and “first public disclosure.” Samsung further objects to this request to the extent it seeks documents not relevant to any issue in this case, rendering the request overbroad, unduly burdensome, and

not reasonably calculated to lead to the discovery of admissible evidence. Samsung further objects to this request to the extent it is asking Samsung to form contentions concerning whether any of its products fall within the scope of the '177 patent.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 69:

DOCUMENTS sufficient to show the first use for a commercial purpose of EACH device that practices any of the claimed inventions from the SAMSUNG PATENT, RELATED PATENTS, AND RELATED APPLICATIONS of which SAMSUNG is aware.

RESPONSE TO REQUEST NO. 69:

Samsung objects to this request as vague and ambiguous as to “sufficient to show” and “first use for a commercial purpose.” Samsung further objects to this request to the extent it seeks documents not relevant to any issue in this case, rendering the request overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Samsung further objects to this request to the extent it is asking Samsung to form contentions concerning whether any of its products fall within the scope of the '177 patent.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 70:

ALL DOCUMENTS that SAMSUNG may use to show nonobviousness of the alleged inventions of the asserted claims of the SAMSUNG PATENT.

RESPONSE TO REQUEST NO. 70:

Samsung objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request to the extent it seeks to reverse the burden of proof concerning nonobviousness. Samsung further objects to this request to the extent it seeks premature expert discovery. Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 71:

ALL DOCUMENTS CONCERNING the basis for any claim OR defense of experimental use in response to an assertion by ON Semiconductor of invalidity of the SAMSUNG PATENT under 35 U.S.C. § 102(b).

RESPONSE TO REQUEST NO. 71:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request in its entirety as premature because Defendants have not yet made an assertion of invalidity under 35 U.S.C. § 102(b).

REQUEST NO. 72:

ALL DOCUMENTS CONCERNING any “objective evidence” of “secondary considerations” of the non-obviousness of any asserted claim of the SAMSUNG PATENT in accordance with, for example, *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966), including, without limitation, commercial success, long-felt need, copying by others, attempts by others to solve the problems addressed by the SAMSUNG PATENT, AND acceptance in the industry AND/or by the public of the claimed alleged inventions.

RESPONSE TO REQUEST NO. 72:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request in its entirety as premature because Defendants have not yet disclosed an obviousness theory.

REQUEST NO. 73:

ALL DOCUMENTS AND THINGS that SAMSUNG contends are relevant to the construction OR interpretation of the asserted claims of the SAMSUNG PATENT, including ALL DOCUMENTS AND THINGS that support OR refute Defendants’ AND SAMSUNG’S proposed constructions of the asserted claims.

RESPONSE TO REQUEST NO. 73:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request in its entirety as premature.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 74:

ALL DOCUMENTS CONCERNING when SAMSUNG became aware that any ON SEMICONDUCTOR PRODUCT potentially OR actually allegedly infringed one OR more of the SAMSUNG PATENT, RELATED PATENTS, AND RELATED APPLICATIONS.

RESPONSE TO REQUEST NO. 74:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the product features accused in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 75:

ALL DOCUMENTS CONCERNING whether the SAMSUNG PATENT is allegedly infringed by any of the accused ON SEMICONDUCTOR PRODUCTS OR the use of the accused ON SEMICONDUCTOR PRODUCTS.

RESPONSE TO REQUEST NO. 75:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 76:

ALL DOCUMENTS AND THINGS CONCERNING the alleged infringement by ON Semiconductor of the SAMSUNG PATENT.

RESPONSE TO REQUEST NO. 76:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 77:

ALL DOCUMENTS AND THINGS CONCERNING any actual OR potential claim by SAMSUNG that Defendants' infringement of the SAMSUNG PATENT is willful OR that SAMSUNG is otherwise entitled to enhanced damages under 25 U.S.C. § 284.

RESPONSE TO REQUEST NO. 77:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of "ALL DOCUMENTS AND THINGS CONCERNING." Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 78:

ALL DOCUMENTS CONCERNING ON Semiconductor, its business, its customers, OR its products.

RESPONSE TO REQUEST NO. 78:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of "ALL DOCUMENTS CONCERNING." Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request to the extent it seeks documents not relevant to any issue

in this case, rendering the request overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 79:

ALL DOCUMENTS AND THINGS CONCERNING any of the accused ON SEMICONDUCTOR PRODUCTS.

RESPONSE TO REQUEST NO. 79:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 80:

ALL DOCUMENTS CONCERNING any discussion of the ON SEMICONDUCTOR PRODUCTS, including methods of manufacture, including but not limited to any competitive analysis of any products OR methods used by SAMSUNG.

RESPONSE TO REQUEST NO. 80:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it

seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request as vague and ambiguous as to “competitive analysis.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 81:

DOCUMENTS sufficient to show ALL assignments, licenses, attempts to license, attempts to enforce, AND negotiations regarding the SAMSUNG PATENT, RELATED PATENTS, AND RELATED APPLICATIONS.

RESPONSE TO REQUEST NO. 81:

Samsung objects to this request as vague and ambiguous as to “sufficient to show.” Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted or the product features accused in this action. Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request to the extent it seeks documents not relevant to any issue in this case, rendering the request overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 82:

ALL DOCUMENTS CONCERNING any discussions CONCERNING the possible licensing of any technology OR methods from SAMSUNG that are in the technical field of the SAMSUNG PATENT, RELATED PATENTS, AND RELATED APPLICATIONS.

RESPONSE TO REQUEST NO. 82:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request as vague and ambiguous as to “possible licensing” and “technical field.” Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted in this action. Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request to the extent it seeks documents not relevant to any issue in this case, rendering the request overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 83:

ALL DOCUMENTS CONCERNING Defendants' potential liability OR non-liability with respect to the SAMSUNG PATENT, RELATED PATENTS, AND RELATED APPLICATIONS.

RESPONSE TO REQUEST NO. 83:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of "ALL DOCUMENTS CONCERNING Defendants' potential liability OR non-liability." Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted in this action. Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request to the extent it seeks documents not relevant to any issue in this case, rendering the request overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 84:

ALL DOCUMENTS AND THINGS CONCERNING any damages that SAMSUNG alleges it has suffered as a result of Defendants' alleged infringement of the SAMSUNG PATENT, including but not limited to any calculation OR estimates of damages, any information forming the basis for such damages calculations OR estimates, AND any methodology used to calculate OR estimate damages.

RESPONSE TO REQUEST NO. 84:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 85:

ALL DOCUMENTS AND THINGS sufficient to show any AND ALL products marked with the SAMSUNG PATENT OR RELATED PATENTS.

RESPONSE TO REQUEST NO. 85:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS AND THINGS.” Samsung further objects to this request as vague and ambiguous as to “sufficient to show.” Samsung further objects to this request as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the request seeks information unrelated to the patents asserted in this action. Samsung further objects to this request in its entirety as irrelevant because the ‘177 patent has only method claims.

REQUEST NO. 86:

ALL DOCUMENTS AND THINGS sufficient to show any marking with the Patent Numbers of the SAMSUNG PATENT by any SAMSUNG licensee OR any efforts to require any licensee to mark any product.

RESPONSE TO REQUEST NO. 86:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS.” Samsung further objects to this request as vague and ambiguous as to “sufficient to show.” Samsung further objects to this request in its entirety as irrelevant because the ‘177 patent has only method claims.

REQUEST NO. 87:

ALL DOCUMENTS CONCERNING the value of the SAMSUNG PATENT, damages for infringement of the SAMSUNG PATENT, AND royalties for licenses for the SAMSUNG PATENT.

RESPONSE TO REQUEST NO. 87:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request as vague and ambiguous as to “value.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

REQUEST NO. 88:

DOCUMENTS sufficient to show ALL rights ever granted under the SAMSUNG PATENT, including assignments, security interests, exclusive AND nonexclusive licenses, transfers of ownership, AND the chain of title of the SAMSUNG PATENT.

RESPONSE TO REQUEST NO. 88:

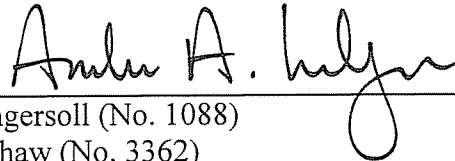
Samsung objects to this request as vague and ambiguous as to “sufficient to show.”

Samsung further objects to this request as overbroad, unduly burdensome, and not reasonably calculated to the lead to the discovery of admissible evidence, to the extent it seeks information not relevant to any issue in this case. Samsung further objects to this request as vague and ambiguous as to “ALL rights ever granted.”

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Dated: May 2, 2007

YOUNG CONAWAY STARGATT
& TAYLOR, LLP



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AND SAMSUNG AUSTIN SEMICONDUCTOR,
L.L.C.*

CERTIFICATE OF SERVICE

I, Andrew A. Lundgren, Esquire, hereby certify that on May 2, 2007, I caused a the foregoing document to be served upon the following counsel of record in the manner indicated below:

BY HAND DELIVERY and E-MAIL

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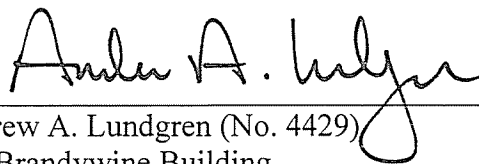
BY E-MAIL

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BY FEDERAL EXPRESS

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EXHIBIT 2

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

SAMSUNG ELECTRONICS CO., LTD.,
SAMSUNG ELECTRONICS AMERICA, INC.,
SAMSUNG TELECOMMUNICATIONS
AMERICA GENERAL, L.L.C.,
SAMSUNG SEMICONDUCTOR, INC., and
SAMSUNG AUSTIN SEMICONDUCTOR L.L.C.,

Plaintiffs,

v.

ON SEMICONDUCTOR CORP.

and

SEMICONDUCTOR COMPONENTS
INDUSTRIES, LLC,

Defendants.

Civil Action No. 06-CV-0720 (***)

**PLAINTIFFS' OBJECTIONS TO DEFENDANTS' SECOND SET OF REQUESTS FOR
PRODUCTION OF DOCUMENTS AND THINGS**

Pursuant to Rules 26 and 34 of the Federal Rules of Civil Procedure, Plaintiffs Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., Samsung Telecommunications America General, LLC, Samsung Semiconductor, Inc., and Samsung Austin Semiconductor, LLC (collectively, "Samsung"), make the following objections and responses to Defendants' Second Set of Requests for Production of Documents and Things. Samsung reserves the right to supplement or amend these objections and responses to the extent allowed by the Federal Rules of Civil Procedure and the Local Rules of this Court.

GENERAL OBJECTIONS

Samsung incorporates by reference its General Objections to Defendants' First Set of Requests for Production of Documents and Things, which apply to each request regardless of whether the General Objections are specifically incorporated into the specific objections below.

SPECIFIC OBJECTIONS AND RESPONSES

Request No. 89: DOCUMENTS sufficient to determine the identity AND responsibilities of EACH officer, director, AND managing agent of SAMSUNG.

RESPONSE TO REQUEST NO. 89:

Samsung objects to this request as vague and ambiguous as to "sufficient to determine" and "managing agent." Samsung further objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks documents concerning "EACH officer, director, AND managing agent of SAMSUNG." Samsung further objects to this request as overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence, on the grounds that it seeks documents not relevant to any issue in this action.

Request No. 90: DOCUMENTS sufficient to show the organizational structure of EACH of the Plaintiffs AND of the working group(s) which designed the SAMSUNG PRODUCTS AND from which the alleged invention of the SAMSUNG PATENT arose, including but not limited to DOCUMENTS sufficient to show ALL individuals working in such working groups.

RESPONSE TO REQUEST NO. 90:

Samsung objects to this request as vague and ambiguous as to "sufficient to show," "organizational structure," "working group(s)," "designed," and "arose." Samsung further objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks documents concerning "ALL individuals." Samsung further objects to this request as overbroad, unduly

burdensome, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of documents not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 91: ALL DOCUMENTS CONCERNING ownership, assignment, AND licensing of the SAMSUNG PATENT OR any RELATED PATENTS.

RESPONSE TO REQUEST NO. 91:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of "ALL DOCUMENTS CONCERNING." Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as unduly burdensome, overbroad, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information concerning patents not asserted in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 92: DOCUMENTS sufficient to identify ALL methods AND structures known to SAMSUNG directed at addressing the problem(s) allegedly solved by the SAMSUNG PATENT.

RESPONSE TO REQUEST NO. 92:

Samsung objects to this request as vague and ambiguous as to "sufficient to identify" and "methods AND structures known to SAMSUNG directed at addressing the problem(s)

allegedly solved by the SAMSUNG PATENT.” Samsung further objects to this request as unduly burdensome, overbroad, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information concerning patents not asserted in this action or otherwise seeks irrelevant information.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 93: ALL DOCUMENTS CONCERNING any contention by any person OR entity that it does not infringe one OR more of the claims of the SAMSUNG PATENT OR any RELATED PATENTS, OR of invalidity OR unenforceability of one OR more claims of the SAMSUNG PATENT.

RESPONSE TO REQUEST NO. 93:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of “ALL DOCUMENTS CONCERNING.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as unduly burdensome, overbroad, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information concerning patents not asserted in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 94: ALL DOCUMENTS CONCERNING any sworn statements, including but not limited to affidavits, declarations, trial testimony, deposition testimony, AND witness statements, of:

- (a) any officer, director, OR employee of SAMSUNG relating to the SAMSUNG PATENT OR any RELATED PATENTS;
- (b) any named inventor of the SAMSUNG PATENT OR any RELATED PATENTS;
- (c) any attorney involved in the prosecution of the SAMSUNG PATENT OR any RELATED PATENTS;
- (d) any person whom SAMSUNG expects to call as a witness (including as an expert witness) at any proceeding in this action.

RESPONSE TO REQUEST NO. 94:

Samsung objects to this request as overbroad, unduly burdensome, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of "ALL DOCUMENTS CONCERNING." Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as unduly burdensome, overbroad, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information concerning patents not asserted in this action or otherwise seeks irrelevant information. Samsung further objects to this request to the extent that it is premature.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 95: DOCUMENTS, including but not limited to schematics, specifications, catalogs, data sheets, design manuals, AND drawings, sufficient to identify AND cross-correlate ALL internal part numbers AND other product identification used by SAMSUNG for EACH SAMSUNG PRODUCT.

RESPONSE TO REQUEST NO. 95:

Samsung objects to this request as vague and ambiguous as to “sufficient to identify,” “cross-correlate,” “internal part numbers,” and “other product identification.” Samsung further objects to this request as overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information concerning products not specifically accused of infringement in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 96: DOCUMENTS, including but not limited to schematics, specifications, catalogs, data sheets, design manuals, AND drawings, sufficient to identify AND cross-correlate the part numbers AND names OR descriptions for EACH component part of EACH SAMSUNG PRODUCT.

RESPONSE TO REQUEST NO. 96:

Samsung objects to this request as vague and ambiguous as to “sufficient to identify,” “cross-correlate,” “internal part numbers,” “names OR descriptions,” and “component part.” Samsung further objects to this request as overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information concerning products not specifically accused of infringement in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 97: DOCUMENTS sufficient to identify the names AND locations of EACH facility in which EACH SAMSUNG PRODUCT OR any component part thereof has been manufactured, assembled, OR packaged, the dates of such manufacturing, assembling, OR packaging since March 19, 1991, AND the identity of EACH corresponding SAMSUNG PRODUCT, including any facility-specific part number OR other identifier.

RESPONSE TO REQUEST NO. 97:

Samsung objects to this request as overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks production of documents outside the relevant timeframe of this action. Samsung further objects to this request as vague and ambiguous as to “component” and “manufactured, assembled, OR packaged.” Samsung further objects to this request as overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information concerning products not specifically accused of infringement in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 98: DOCUMENTS sufficient to identify the facility-specific name for EACH semiconductor manufacturing process used to fabricate EACH SAMSUNG PRODUCT OR component thereof.

RESPONSE TO REQUEST NO. 98:

Samsung objects to this request as vague and ambiguous as to “sufficient to identify, “facility-specific name,” and “semiconductor manufacturing process.” Samsung further objects to this request as overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information concerning products not specifically accused of infringement in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search

Request No. 99: DOCUMENTS, including but not limited to schematics, specifications, catalogs, data sheets, design manuals, AND drawings, sufficient to identify, by part number, EACH memory die incorporated into EACH SAMSUNG PRODUCT. If more than one memory die can be used interchangeably in a SAMSUNG PRODUCT, DOCUMENTS sufficient to identify EACH such die AND the corresponding part number for the SAMSUNG PRODUCT should be produced.

RESPONSE TO REQUEST NO. 99:

Samsung objects to this request as vague and ambiguous as to “sufficient to identify.” Samsung further objects to this request to the extent it seeks production of documents protected from discovery by the attorney-client privilege, attorney work-product doctrine, or any other applicable privilege or immunity. Samsung further objects to this request as overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information concerning products not specifically accused of infringement in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 100: DOCUMENTS sufficient to identify EACH end product, including but not limited to computers, cellular telephones, AND game consoles, incorporating any SAMSUNG PRODUCT, AND DOCUMENTS sufficient to identify EACH SAMSUNG PRODUCT incorporated therein.

RESPONSE TO REQUEST NO. 100:

Samsung objects to this request as vague and ambiguous as to “sufficient to identify” and “end product.” Samsung further objects to this request as overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks

information concerning products not specifically accused of infringement in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 101: For EACH end product, including but not limited to computers, cellular telephones, AND game consoles, incorporating EACH SAMSUNG PRODUCT, DOCUMENTS sufficient to identify the dates of first AND last offer of sale AND the first AND last date of sale.

RESPONSE TO REQUEST NO. 101:

Samsung objects to this request as vague and ambiguous as to “sufficient to identify” and “end product.” Samsung further objects to this request as unduly burdensome, overbroad, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 102: For EACH SAMSUNG PRODUCT, DOCUMENTS sufficient to identify the dates of first AND last offer of sale AND the first AND last date of sale.

RESPONSE TO REQUEST NO. 102:

Samsung objects to this request as vague and ambiguous as to “sufficient to identify.” Samsung further objects to this request as unduly burdensome, overbroad, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 103: DOCUMENTS sufficient to show the design, development, structure, evaluation, OR operation of EACH GDDR made OR sold by SAMSUNG, including, but not limited to, components of the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 103:

Samsung objects to this request as vague and ambiguous as to “sufficient to show,” “design, development, structure, evaluation, OR operation,” “EACH GDDR,” and “components.” Samsung further objects to this request as unduly burdensome, overbroad, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information unrelated to the specific products and product features accused of infringement in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 104: DOCUMENTS sufficient to show the structure AND method of on-die termination in EACH GDDR made OR sold by SAMSUNG, including, but not limited to, components of the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 104:

Samsung objects to this request as vague and ambiguous as to “sufficient to show,” “structure AND method,” “EACH GDDR,” and “components.” Samsung further objects to this request as unduly burdensome, overbroad, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information unrelated to the specific products and product features accused of infringement in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 105: DOCUMENTS sufficient to show the structure AND method of operation of the extended mode register in EACH GDDR made OR sold by SAMSUNG, including, but not limited to, components of the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 105:

Samsung objects to this request as vague and ambiguous as to “sufficient to show,” “structure AND method of operation,” “extended mode register,” “EACH GDDR,” and “components.” Samsung further objects to this request as unduly burdensome, overbroad, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information unrelated to the specific products and product features accused of infringement in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 106: DOCUMENTS, including but not limited to schematics, specifications, catalogs, data sheets, design manuals, AND drawings, sufficient to show the design, structure, evaluation, OR use of any electroplating systems used in production of any SAMSUNG PRODUCT, including but not limited to GDDR products.

RESPONSE TO REQUEST NO. 106:

Samsung objects to this request as vague and ambiguous as to “sufficient to show,” “electroplating systems,” and “GDDR products.” Samsung further objects to this request as unduly burdensome, overbroad, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information unrelated to methods specifically accused of infringing the ‘827 patent in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents relating to methods specifically accused of infringing the ‘827 patent to the extent such documents exist and are located after a reasonable search.

Request No. 107: DOCUMENTS, including but not limited to schematics, specifications, catalogs, data sheets, design manuals, AND drawings, sufficient to show the method of any electroplating performed in production of any SAMSUNG PRODUCT, including but not limited to GDDR products.

RESPONSE TO REQUEST NO. 107:

Samsung objects to this request as vague and ambiguous as to “sufficient to show,” “method of any electroplating performed in production,” and “GDDR products.” Samsung further objects to this request as unduly burdensome, overbroad, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information unrelated to methods specifically accused of infringing the ‘827 patent in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents relating to methods specifically accused of infringing the ‘827 patent to the extent such documents exist and are located after a reasonable search.

Request No. 108: DOCUMENTS, including but not limited to schematics, specifications, catalogs, data sheets, design manuals, AND drawings, sufficient to show the development, evaluation, OR operation of any electroplating performed in production of any SAMSUNG PRODUCT, including but not limited to GDDR products.

RESPONSE TO REQUEST NO. 108:

Samsung objects to this request as vague and ambiguous as to “sufficient to show,” “development, evaluation, OR operation of any electroplating performed,” and “GDDR products.” Samsung further objects to this request as unduly burdensome, overbroad, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information unrelated to methods specifically accused of infringing the ‘827 patent in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents relating to methods specifically accused of infringing the ‘827 patent to the extent such documents exist and are located after a reasonable search.

Request No. 109: DOCUMENTS sufficient to show any method of cup plating performed by SAMSUNG, including but not limited to cup plating performed in production of the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 109:

Samsung objects to this request as vague and ambiguous as to “sufficient to show” and “method of cup plating.” Samsung further objects to this request as unduly burdensome, overbroad, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information unrelated to methods specifically accused of infringing the ‘827 patent in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents relating to methods specifically accused of infringing the ‘827 patent to the extent such documents exist and are located after a reasonable search.

Request No. 110: DOCUMENTS sufficient to show the electroplating methods OR procedures performed by SAMSUNG using the Applied Materials SlimCell ECP system, the Novellus Sabre[®] system, the Semitool Raider[®] ECD system, the Semitool Raider[™] ECD3 10 system, OR the Semitool Equinox[®] system.

RESPONSE TO REQUEST NO. 110:

Samsung objects to this request as vague and ambiguous as to “sufficient to show” and “electroplating methods OR procedures.” Samsung further objects to this request as unduly burdensome, overbroad, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information unrelated to methods specifically accused of infringing the ‘827 patent in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents relating to methods specifically accused of infringing the ‘827 patent to the extent such documents exist and are located after a reasonable search.

Request No. 111: DOCUMENTS, including but not limited to schematics, specifications, catalogs, data sheets, design manuals, AND drawings, sufficient to show the

design, development, structure, evaluation, OR operation of EACH DDR made OR included in products sold by SAMSUNG, including but not limited to, the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 111:

Samsung objects to this request as vague and ambiguous as to “sufficient to show,” design, development, structure, evaluation, OR operation,” and “EACH DDR.” Samsung further objects to this request as unduly burdensome, overbroad, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information unrelated to the specific products and product features accused of infringement in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 112: DOCUMENTS, including but not limited to schematics, specifications, catalogs, data sheets, design manuals, AND drawings, sufficient to show the design, development, structure, evaluation, OR operation of any data input register used in a parallel to serial conversion in any product made OR sold by SAMSUNG, including but not limited to the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 112:

Samsung objects to this request as vague and ambiguous as to “sufficient to show” and “design, development, structure, evaluation, OR operation of any data input register used in a parallel to serial conversion.” Samsung further objects to this request as unduly burdensome, overbroad, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information unrelated to the specific products and product features accused of infringement in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 113: DOCUMENTS, including but not limited to schematics, specifications, catalogs, data sheets, design manuals, AND drawings, sufficient to show the design, development, structure, evaluation, OR operation of any prefetch operation in a parallel to serial conversion in any product made OR sold by SAMSUNG, including but not limited to the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 113:

Samsung objects to this request as vague and ambiguous as to “sufficient to show” and “design, development, structure, evaluation, OR operation of any prefetch operation in a parallel to serial conversion.” Samsung further objects to this request as unduly burdensome, overbroad, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information unrelated to the specific products and product features accused of infringement in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 114: DOCUMENTS, including but not limited to schematics, specifications, catalogs, data sheets, design manuals, AND drawings, sufficient to show the design, development, structure, evaluation, OR operation of any timing register used in a parallel to serial conversion in any product made OR sold by SAMSUNG, including but not limited to the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 114:

Samsung objects to this request as vague and ambiguous as to “sufficient to show” and “design, development, structure, evaluation, OR operation of any timing register used in a parallel to serial conversion.” Samsung further objects to this request as unduly burdensome, overbroad, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information unrelated to the specific products and product features accused of infringement in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 115: DOCUMENTS, including but not limited to schematics, specifications, catalogs, data sheets, design manuals, AND drawings, sufficient to show the design, development, structure, evaluation, OR operation of any burst read operation used in any DDR made OR sold by SAMSUNG, including but not limited to the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 115:

Samsung objects to this request as vague and ambiguous as to “sufficient to show,” “design, development, structure, evaluation, OR operation of any burst read operation,” and “any DDR.” Samsung further objects to this request as unduly burdensome, overbroad, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information unrelated to the specific products and product features accused of infringement in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 116: DOCUMENTS, including but not limited to schematics, specifications, catalogs, data sheets, design manuals, AND drawings, CONCERNING any product that includes a device with any of the following labeling: “SAMSUNG b52,” “BPK130EA,” OR “K4X56323PF-BNB.”

RESPONSE TO REQUEST NO. 116:

Samsung objects to this request as overbroad, unduly burdensome, and vague and ambiguous as to “CONCERNING.” Samsung further objects to this request as unduly burdensome, overbroad, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information unrelated to the specific products and product features accused of infringement in this action, or otherwise seeks information not relevant to

any issue in this action. Samsung further objects to this request as vague and ambiguous as to "Samsung b52."

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 117: DOCUMENTS, including but not limited to schematics, specifications, catalogs, data sheets, design manuals, AND drawings, sufficient to show the design, development, structure, evaluation, OR operation of any DDR2 SDRAM product made OR sold by SAMSUNG, including but not limited to the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 117:

Samsung objects to this request as vague and ambiguous as to "sufficient to show" and "design, development, structure, evaluation, OR operation." Samsung further objects to this request as unduly burdensome, overbroad, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information unrelated to the specific products and product features accused of infringement in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 118: DOCUMENTS sufficient to show the structure AND method of on-die termination in EACH DDR2 made OR sold by SAMSUNG, including, but not limited to, components of the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 118:

Samsung objects to this request as vague and ambiguous as to "sufficient to show," "the structure AND method of on-die termination," and "EACH DDR2." Samsung further objects to this request as unduly burdensome, overbroad, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information unrelated to the specific

products and product features accused of infringement in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 119: DOCUMENTS, including but not limited to package pinout schematics, specifications, catalogs, data sheets, design manuals, AND drawings, sufficient to show the design, development, structure, evaluation, operation, OR placement of any pins, including but not limited to DQ0, DQ1, DQ2, DQ3, VDD, VDDQ, VSS, OR VSSQ, in a semiconductor package involving on-die termination in any product made OR sold by SAMSUNG, including but not limited to the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 119:

Samsung objects to this request as vague and ambiguous as to “sufficient to show,” “design, development, structure, evaluation, operation, OR placement of any pins,” and “involving on-die termination.” Samsung further objects to this request as unduly burdensome, overbroad, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information unrelated to the specific products and product features accused of infringement in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 120: DOCUMENTS, including but not limited to schematics, specifications, catalogs, data sheets, design manuals, AND drawings, sufficient to show the design, development, structure, evaluation, operation, placement, OR value of resistors, including but not limited to resistors designated Rval1 AND Rval2, involved in on-die termination in any product made OR sold by SAMSUNG, including but not limited to the SAMSUNG PRODUCTS.

RESPONSE TO REQUEST NO. 120:

Samsung objects to this request as vague and ambiguous as to “sufficient to show,” “design, development, structure, evaluation, operation, placement, OR value of resistors,” and “involved in on-die termination in any product.” Samsung further objects to this request as unduly burdensome, overbroad, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information unrelated to the specific products and product features accused of infringement in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Request No. 121: DOCUMENTS, including but not limited to schematics, specifications, catalogs, data sheets, design manuals, AND drawings, sufficient to show the design, development, structure, evaluation, operation, OR placement of any DRAM input buffer which uses on-die termination in any product made OR sold by SAMSUNG, including but not limited to the SAMSUNG PRODUCTS.

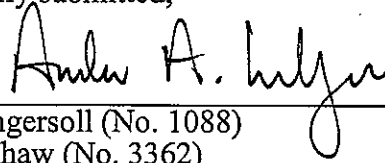
RESPONSE TO REQUEST NO. 121:

Samsung objects to this request as vague and ambiguous as to “sufficient to show” and “design, development, structure, evaluation, operation, OR placement of any DRAM input buffer which uses on-die termination.” Samsung further objects to this request as unduly burdensome, overbroad, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information unrelated to the specific products and product features accused of infringement in this action, or otherwise seeks information not relevant to any issue in this action.

Subject to its general and specific objections, Samsung will produce responsive, non-privileged documents to the extent such documents exist and are located after a reasonable search.

Dated: June 7, 2007

Respectfully submitted,



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L.L.C., SAMSUNG SEMICONDUCTOR, INC.,
AND SAMSUNG AUSTIN SEMICONDUCTOR,
L.L.C.*

CERTIFICATE OF SERVICE

I, Andrew A. Lundgren, Esquire, hereby certify that on June 7, 2007, I caused a the foregoing document to be served upon the following counsel of record in the manner indicated below:

BY HAND DELIVERY and E-MAIL

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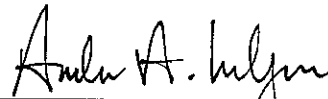
BY E-MAIL

Behrooz Shariati, Esquire <i>bshariati@jonesday.com</i>	T. Gregory Lanier, Esquire <i>tglanier@jonesday.com</i>
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BY FEDERAL EXPRESS

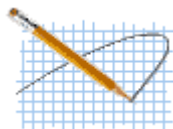
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EXHIBIT 3



Behrooz Shariati/JonesDay

01/04/2008 05:49 PM


To jmarina@kirkland.com

cc Cora Schmid/JonesDay@JonesDay, klouden@mnat.com

bcc

Subject Samsung v. ON Semiconductor Discovery

History:

 This message has been forwarded.

Dear James:

With the stipulated protective order filed with the Court, and the document discovery cutoff approaching rapidly, we urgently need to receive from Samsung documents we first requested over 9 months ago. The table below summarizes the most urgently needed documents that should be produced immediately.

Because of the Court's practice regarding motions to compel, if we need to file a motion with the Court that can be heard in February, we must file the motion no later than next Thursday, January 10, 2008. We need you to confirm on or before Wednesday, January 9, 2008 that Samsung will produce, at a minimum, the following documents no later than January 15, 2008. In the alternative, we will file our motion to compel with the Court on Thursday to get on the Court's docket for February.

These are the documents we need on or before January 15th:

- Design information for the accused Samsung products, as defined in ON Semiconductor's first and second sets of document requests. These documents should include, but are not limited to, design databases, netlists, schematics, GDS2 layout information, design documents, and specifications. This type of information is responsive to at least ON Semiconductor's Request Nos. 25, 32-39, 95-105, and 111-121.
- Documentation of the development, design, and operation of any electroplating methods performed in production of the accused Samsung products. These documents should include, but are not limited to, schematics, specifications, process flows, data sheets, and design manuals. This type of information is responsive to at least ON Semiconductor's Request Nos. 25, 32-39, 95-102, and 106-110.
- All documents that Samsung contends are relevant to the construction and/or interpretation of the asserted claims of the patents-in-suit. This type of information is responsive to at least ON Semiconductor's Request Nos. 19-20 and 49-50.
- Documents relevant to Samsung's assertions that ON Semiconductor's patents-in-suit are invalid. These documents should include, but not be limited to, documents that Samsung assert constitute prior art that allegedly anticipates each asserted claim of ON Semiconductor's patents or renders it obvious. This type of information is responsive to at least ON Semiconductor's Request Nos. 21-24.
- Documents regarding the alleged conception, research, testing, design, reduction to practice, or other development of subject matter claim in Samsung's patent-in-suit. This type of information is responsive to at least ON Semiconductor's Request Nos. 55-56.

We expect Samsung to produce all the documents requested by our discovery requests and not just the ones listed in this email. The list above is only meant to assist Samsung in prioritizing its production.

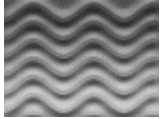
We recognize that the obligation to produce documents runs both ways and we intend to start producing documents next week in multipage TIFF format. If you would like the documents in a different format, please let us know right away.

We would prefer to proceed without seeking the Court's assistance, however, we will do what we have to do to meet the case deadlines.


Regards,


Behrooz Shariati
Jones Day
Silicon Valley Office
+1.650.739.3920 (Direct)
+1.650.739.3945 (Assistant: Lee Keith)
+1.650.739.3900 (Facsimile)
1755 Embarcadero Road
Palo Alto, CA 94303
USA
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EXHIBIT 4



Behrooz Shariati/JonesDay
Extension ext. 33920 Direct:
650.739.3920
01/09/2008 11:06 AM

To James Marina <JMarina@kirkland.com>
cc jshaw@ycst.com, Cora Schmid
bcc
Subject Re: Samsung v. ON Semiconductor Discovery 

History:  This message has been forwarded.

Dear James:

Thank you for your response. We look forward to receiving the documents. As I already said in my e-mail, ON will also be producing documents in the same time frame.

Best regards,

Behrooz Shariati
Jones Day
Silicon Valley Office
+1.650.739.3920 (Direct)
+1.650.739.3945 (Assistant: Lee Keith)
+1.650.739.3900 (Facsimile)
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James Marina <JMarina@kirkland.com>



James Marina
<JMarina@kirkland.com>
01/09/2008 09:58 AM

To Behrooz Shariati <bshariati@JonesDay.com>
cc jshaw@ycst.com
Subject Re: Samsung v. ON Semiconductor Discovery

Dear Behrooz,

I was taken aback by your email, particularly since ON Semi has not produced any documents in this case. Samsung will be producing non-privileged documents responsive to the below categories by January 15. We likewise expect ON Semi to produce the same documents in the same timeframe, including documents concerning ON Semi's processes for forming electrical connections between conductive layers on a semiconductor substrate (see, e.g., Request Nos. 88 and 89).

-James

Behrooz Shariati <bshariati@JonesDay.com>

01/04/2008 08:50 PM

To jmarina@kirkland.com

cc Cora Schmid <cschmid@JonesDay.com>, klouden@mnat.com

Subject Samsung v. ON Semiconductor Discovery

Dear James:

With the stipulated protective order filed with the Court, and the document discovery cutoff approaching rapidly, we urgently need to receive from Samsung documents we first requested over 9 months ago. The table below summarizes the most urgently needed documents that should be produced immediately.

Because of the Court's practice regarding motions to compel, if we need to file a motion with the Court that can be heard in February, we must file the motion no later than next Thursday, January 10, 2008. We need you to confirm on or before Wednesday, January 9, 2008 that Samsung will produce, at a minimum, the following documents no later than January 15, 2008. In the alternative, we will file our motion to compel with the Court on Thursday to get on the Court's docket for February.

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- All documents that Samsung contends are relevant to the construction and/or interpretation of the asserted claims of the patents-in-suit. This type of information is responsive to at least ON Semiconductor's Request Nos. 19-20 and 49-50.
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- Documents regarding the alleged conception, research, testing, design, reduction to practice, or other development of subject matter claim in Samsung's patent-in-suit. This type of information is responsive to at least ON Semiconductor's Request Nos. 55-56.

We expect Samsung to produce all the documents requested by our discovery requests and not just the ones listed in this email. The list above is only meant to assist Samsung in prioritizing its production.

We recognize that the obligation to produce documents runs both ways and we intend to start producing documents next week in multipage TIFF format. If you would like the documents in a different format, please let us know right away.

We would prefer to proceed without seeking the Court's assistance, however, we will do what we have to do to meet the case deadlines.

Regards,

Behrooz Shariati
Jones Day
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This e-mail (including any attachments) may contain information that is private, confidential, or protected by attorney-client or other privilege. If you received this e-mail in error, please delete it from your system without copying it and notify sender by reply e-mail, so that our records can be corrected.

=====

EXHIBIT 5

JONES DAY

1755 EMBARCADERO ROAD • PALO ALTO, CALIFORNIA 94303
TELEPHONE: (650) 739-3939 • FACSIMILE: (650) 739-3900

Guadalupe M. Garcia
Direct Number: (650) 739-3910
gmgarcia@jonesday.com

January 23, 2008

BY E-MAIL

James Marina, Esq.
Kirkland & Ellis LLP
Citigroup Center
153 East 53rd Street
New York, New York 10022-4611

Re: *ON Semiconductor Corp. v. Samsung Electronics Co., Ltd.*
Civil Action No. 1:07-cv-00449 (JJF)
Samsung Electronics Co., Ltd. v. ON Semiconductor Corp.
Civil Action No. 1:06-cv-00720 (JJF)

Dear James:

On January 4, 2008, after months of Samsung's delays during negotiation of a protective order, ON Semiconductor asked you to produce specific categories of documents. You responded on January 9, 2008, stating that Samsung's first January 15, 2008 production would include the requested categories. However, Samsung's first production failed to include sufficient documents with information at the heart of this case—specifically, documents indicating whether or not Samsung's accused products infringe ON Semiconductor's patents.

It was Samsung who initiated this action well over a year ago, seeking declaratory judgments of non-infringement of ON Semiconductor patents. The crucial evidence relevant to these claims was described in two categories ON Semiconductor requested on January 4, 2008, specifically:

- Design information for the accused Samsung products, as defined in ON Semiconductor's first and second sets of document requests. These documents should include, but are not limited to, design databases, netlists, schematics, GDS2 layout information, design documents, and specifications. This type of information is responsive to at least ON Semiconductor's Request Nos. 25, 32-39, 95-105, and 111-121.
- Documentation of the development, design, and operation of any electroplating methods performed in production of the accused Samsung products. These documents should include, but are not limited to, schematics, specifications, process flows, data sheets, and

JONES DAY

James E. Marina, Esq.
January 23, 2008
Page 2

design manuals. This type of information is responsive to at least ON Semiconductor's Request Nos. 25, 32-39, 95-102, and 106-110.

In spite of Samsung's reassurances that its first production would contain these documents, its first production contained only minimal schematics, hardly any GDS2 layout information, and no process flow information. Samsung must have this type of information, as Samsung did produce some minimal schematics, included some excerpts of layout information in presentations, and must make products according to some form of process flows.

In light of Samsung's delays in negotiations for a protective order, we now find ourselves with less than two months before the close of document production. At this point, ON Semiconductor requires production of the documents addressing whether Samsung's products infringe ON Semiconductor's patents, in particular:

- Samsung's **schematic and layout databases** for each accused Samsung product as defined in ON Semiconductor's Requests for Production of Documents and Things, along with identification of the product(s) to which each schematic or layout corresponds. Such information is crucial for evaluating Samsung's claim of non-infringement of the '644, '594, and '001 patents.
- **Process flows** for electroplating used in the manufacture of each accused Samsung product as defined in ON Semiconductor's Requests for Production of Documents and Things, along with identification of the product(s) to which each process flow corresponds. Such information is crucial for evaluating Samsung's claim of non-infringement of the '827 patent.

In light of the impending document production deadline, ON Semiconductor is eager to arrange production of these documents as soon as possible. We request a meet and confer on these issues on Monday, January 28, 2008. Please let us know of a convenient time.

Regards,

JONES DAY

Guadalupe M. Garcia

SVI-54221v1

EXHIBIT 6

KIRKLAND & ELLIS LLP
AND AFFILIATED PARTNERSHIPS

Citigroup Center
153 East 53rd Street
New York, New York 10022-4611

Jennifer J. Schmidt
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(212) 446-6457
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(212) 446-4900
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January 30, 2008

VIA E-MAIL

Guadalupe M. Garcia, Esq.
Jones Day
1755 Embarcadero Road
Palo Alto, CA 94303

Re: *Samsung Electronics Co., Ltd. v. ON Semiconductor Corp.*,
Civil Action Nos. 06-cv-720 (JJF) and 07-cv-449 (JJF)

Dear Guadalupe:

I write in response to your January 23, 2008 letter to James Marina addressing alleged deficiencies in Samsung's January 15, 2008 document production.

First, your letter mischaracterizes Samsung's document production. On January 15, Samsung produced over 100,000 pages of technical documentation concerning the accused products, including over 11,000 pages of schematics, circuit diagrams, timing diagrams, and technical specifications. If you believe that Samsung has failed to produce documents for specific accused products, please identify those products and we will double check the production. Furthermore, layout design documentation, including netlists and GDS2 layout information, is irrelevant to the patents involved in this action. If you believe that these documents are relevant, please provide an explanation beyond the conclusory and unsupported assertions in your letter.

Second, with respect to the '827 patent, ON Semiconductor has accused of infringement "processes used to make Samsung products that include plated structures such as 'bumped die' or 'wafer level packaging' with a pitch of less than about 150 microns (um)" and that are "made using the following systems: Applied Materials, Inc.'s SlimCell system, Novellus Systems Inc.'s Sabre system, and Semitool Inc.'s Raider ECD, Raider ECD310, and Equinox systems." The Novellus Sabre is the only one of these systems that Samsung uses, and, based on our investigations to date, Samsung does not use the Novellus Sabre system to manufacture "'bumped die' or 'wafer level packaging' with a pitch of less than about 150 microns (um)." On Semiconductor's broad request for "electroplating" and "process flow" documents beyond its infringement contentions in this case is an improper fishing expedition.

Finally, ON Semiconductor's own document production contains few documents concerning ON Semiconductor's processes for forming electrical connections between

KIRKLAND & ELLIS LLP

Guadalupe M. Garcia, Esq.
January 30, 2008
Page 2

conductive layers on a semiconductor substrate (see, e.g., Samsung's Request Nos. 88 and 89). Please be prepared to discuss ON Semiconductor's deficient production during our meet and confer tomorrow.

I also write in response to your January 29, 2008 email to me. The requested documents, "materials related to any legal or administrative proceeding involving the accused products," are not relevant to the claims or defenses in this case. If you believe that these documents are relevant, please provide an explanation.

Very truly yours,

A handwritten signature in black ink that reads "Jennifer Schmidt". The signature is written in a cursive, flowing style.

Jennifer J. Schmidt

JJS

EXHIBIT 7

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

SAMSUNG ELECTRONICS CO. LTD.,)	
SAMSUNG ELECTRONICS AMERICA, INC.,)	
SAMSUNG TELECOMMUNICATIONS)	
AMERICA GENERAL, LLC,)	
SAMSUNG SEMICONDUCTOR, INC., and)	
SAMSUNG AUSTIN SEMICONDUCTOR LLC,)	
)	C.A. No. 06-720 (***)
Plaintiffs,)	
)	
v.)	
)	
ON SEMICONDUCTOR CORP. and)	
SEMICONDUCTOR COMPONENTS)	
INDUSTRIES, LLC,)	
)	
Defendants.)	

**DEFENDANTS RESPONSES TO PLAINTIFFS’
FIRST SET OF INTERROGATORIES (NOS. 1-13)**

Pursuant to Rules 26 and 33 of the Federal Rules of Civil Procedure, Defendants ON Semiconductor Corp. and Semiconductor Components Industries, LLC (collectively, “ON Semiconductor”), hereby responds to Plaintiffs’ First Set of Interrogatories.

ON Semiconductor reserves the right to supplement these responses and objections to the extent allowed by the Federal Rules of Civil Procedure and the Local Rules of this Court.

GENERAL OBJECTIONS

ON Semiconductor makes the following general objections to Plaintiffs’ First Set of Interrogatories, which apply to each interrogatory regardless of whether the general objections are specifically incorporated in the specific objections below.

1. ON Semiconductor objects to each interrogatory to the extent that it seeks information that is protected from disclosure by the attorney-client privilege, the attorney work

product doctrine, the privilege afforded non-testifying experts by Fed. R. Civ. P 26(b), or that is otherwise protected from disclosure under the Federal Rules of Civil Procedure, the Federal Rules of Evidence, or the relevant statutory or case law. Should any such production by ON Semiconductor occur, it is inadvertent and shall not constitute a waiver of any privilege or of any other ground for objecting to discovery with respect to such documents or any other documents, or parts thereof, or of ON Semiconductor's right to object during this litigation or otherwise to the use of any such document or any parts thereof. Reference herein to "non-privileged" documents includes those documents not protected from disclosure by the attorney-client privilege, the attorney work product doctrine, and the non-testifying expert privilege.

2. ON Semiconductor objects to identifying any privileged or work product documents written or prepared on or after November 30, 2006, the date this action was filed. ON Semiconductor will withhold all privileged and work product documents created or prepared by any of its employees, attorneys, agents, or representatives on or after that date. ON Semiconductor believes that the categorical identification of such withheld documents satisfies any identification requirements predicate to a proper assertion of the applicable privilege or immunity.

3. ON Semiconductor objects to each interrogatory to the extent it seeks confidential and proprietary information of ON Semiconductor and/or of third parties that is in ON Semiconductor's possession. ON Semiconductor will provide such information only pursuant to an agreement between the parties and/or Local Rule 26.2, as to handling of confidential information, and/or pursuant to any subsequently entered protective order.

4. ON Semiconductor objects to each interrogatory to the extent that it seeks information that ON Semiconductor is not permitted to disclose pursuant to confidentiality obligations or agreements with third parties.

5. ON Semiconductor objects to each interrogatory to the extent it seeks to impose upon ON Semiconductor duties and/or responsibilities greater than those imposed by the Federal Rules of Civil Procedure, the Local Rules of this Court, any applicable orders of this Court, or any stipulation or agreement of the parties.

6. ON Semiconductor objects to Plaintiffs' definitions and instructions to the extent they seek to impose upon ON Semiconductor duties and/or responsibilities greater than those imposed by the Federal Rules of Civil Procedure, the Local Rules of this Court, any applicable orders of this Court, or any stipulation or agreement of the parties.

7. ON Semiconductor objects to each interrogatory, definition, and instruction to the extent it seeks documents and things that do not exist or are not in ON Semiconductor's possession, custody, and control.

8. ON Semiconductor objects to the use of the terms "all documents" and "all documents and things" in Samsung's interrogatories to the extent the terms require more than is required under the Federal Rules of Civil Procedure, and further to the extent the terms make the interrogatories overly broad, unduly burdensome, and/or not otherwise relevant to any claim or defense of any party. Moreover, ON Semiconductor objects to the use of the terms "all documents" and "all documents and things" to the extent the terms require the production of documents not within ON Semiconductor's possession, custody, or control.

9. ON Semiconductor objects to each interrogatory to the extent it seeks information that is not relevant to any claim or defense in this action, or reasonably likely to lead

to the discovery of admissible evidence that is relevant to any claim or defense, under Rule 26(b)(1) of the Federal Rules of Civil Procedure.

10. ON Semiconductor objects to each interrogatory as unduly burdensome, oppressive, and calling for information that is not relevant to any claim or defense of any party, to the extent the interrogatory seeks information unrelated to the patents asserted or the products accused of infringement in this action.

11. ON Semiconductor objects to each interrogatory as unduly burdensome, oppressive, and calling for information that is not relevant to any claim or defense of any party, to the extent the interrogatory seeks information unrelated to the relevant temporal or geographic scope of this matter.

12. ON Semiconductor objects to each interrogatory as overly broad, unduly burdensome, oppressive, and not relevant to any claim or defense of any party to the extent they seek documents or things concerning products or manufacturing processes for products that were not made, used, offered for sale, or sold in the United States.

13. ON Semiconductor objects to each interrogatory as overly broad and unduly burdensome to the extent it specifies (i) no time frame or (ii) a time frame beyond the time period that is relevant in this proceeding.

14. ON Semiconductor objects to each interrogatory to the extent that (i) the discovery sought by any interrogatory is unreasonably cumulative or duplicative, or is obtainable from some other source that is more convenient, less burdensome, or less expensive; and/or (ii) the burden or expense of the proposed discovery outweighs the likely benefit, taking into account the needs of the case, the amount in controversy, the parties' resources, the importance of the

issues at stake in the litigation, and the importance of the proposed discovery in resolving those issues, as limited by Rule 26(b)(2) of the Federal Rules of Civil Procedure.

15. ON Semiconductor objects to each interrogatory to the extent the discovery sought is unreasonably cumulative or duplicative, or is obtainable from some other source, including but not limited to Samsung itself, that is more convenient, less burdensome, or less expensive. ON Semiconductor also objects to each interrogatory to the extent that the burden or expense of the discovery sought outweighs its likely benefit.

16. ON Semiconductor objects to each interrogatory as unduly burdensome to the extent they seek information already in Samsung's possession, or which is a matter of public record or otherwise equally available to Samsung.

17. ON Semiconductor objects to each interrogatory to the extent it seeks documents and/or things obtainable from some other source that is more convenient, less burdensome, or less expensive.

18. ON Semiconductor objects to each interrogatory to the extent it is vague, ambiguous, or confusing.

19. ON Semiconductor objects to each interrogatory to the extent that it is premature at this early stage of litigation.

20. ON Semiconductor objects to each interrogatory to the extent that it seeks information prior to the schedule for disclosure that will be set forth in the Court's Scheduling Order.

21. ON Semiconductor objects to each interrogatory to the extent that it prematurely seeks documents and things concerning or to be provided by expert witnesses. ON

Semiconductor will provide such documents and things according to the schedule established by the Court.

22. ON Semiconductor objects to each interrogatory to the extent that it uses terms which have yet to be construed by the Court; Defendants' response to any such interrogatory is not any admission or statement regarding such construction.

23. ON Semiconductor objects to each interrogatory as premature because ON Semiconductor's investigation in ongoing and discovery in this action is just beginning. Accordingly, ON Semiconductor will supplement its responses in accordance with the Federal Rules of Civil Procedure.

24. Consistent with Fed. R. Civ. P. 33(d), ON Semiconductor objects to providing responses to interrogatories where the information can be derived from documents which are being or have been produced.

25. ON Semiconductor objects to each interrogatory to the extent that such interrogatory seeks to impose a burden on ON Semiconductor to categorize information in a manner that is not readily available to ON Semiconductor.

26. ON Semiconductor objects to each interrogatory that seeks "all" information or "every" fact relating to a particular subject matter to the extent that ON Semiconductor would be required to seek information from all of its employees and this would be inconsistent with the provisions of Rule 26(b)(2)(iii) of the Federal Rules of Civil Procedure. In seeking relevant information, ON Semiconductor will make inquiry of persons who are reasonably likely to have such information and of other persons identified by these persons.

27. ON Semiconductor objects to Plaintiffs' definitions of "ON Semiconductor," "Defendants," "You," or "Your" to the extent that those definitions include

persons or entities other than ON Semiconductor Corp. or Semiconductor Components Industries, LLC, which are not parties to this action. ON Semiconductor further objects to Plaintiffs' definitions of "ON Semiconductor," "Defendants," "You," or "Your" to the extent Plaintiffs' definitions improperly expand the scope of discovery by seeking information and documents that are not currently in the possession, custody, or control of ON Semiconductor Corp. or Semiconductor Components Industries, LLC.

28. ON Semiconductor objects to Samsung's definition of the term "Samsung Products" as vague and ambiguous and/or premature as to the phrase "any product or method . . . that Defendants contend infringes any or all of ON Semiconductor Patents-in-Suit," as ON Semiconductor has not made any such contentions in this suit at this time.

29. ON Semiconductor objects to Samsung's definition of the term "document" and "documents" to the extent it varies from the meaning of the term as provided in Rule 34(a) of the Federal Rules of Civil Procedure.

30. ON Semiconductor objects to Samsung's definition of the terms "relating to" or "relate to" as overly vague and ambiguous with regards to "alluding to," overly broad, and unduly burdensome.

31. ON Semiconductor objects to Samsung's instructions to the extent that it calls for ON Semiconductor to produce documents in a form other than how they are maintained in the ordinary course of business.

32. ON Semiconductor objects to Samsung's instructions as overly broad and unduly burdensome to the extent that it calls for ON Semiconductor to, "as to each document and thing produced in response hereto . . . identify the interrogatory for production where applicable, the interrogatory number, in response to which the document or thing is being produced."

33. ON Semiconductor's answers to Samsung's interrogatories do not constitute admissions or acknowledgements that the information sought is within the proper scope of discovery or admissible at trial.

34. ON Semiconductor's answers to Samsung's interrogatories are made without in any way waiving (a) the right to object, on the grounds of competency, relevancy, materiality, privilege, or admissibility, as evidence for any purpose in any subsequent proceeding in, or the hearing of, this action or any other action; and (b) the right to object on any grounds to other interrogatories involving or relating to the subject matter of Samsung's interrogatories.

35. ON Semiconductor will produce documents and things within its possession, custody, or control that it is able to locate after a good faith search of files in which responsive documents are likely to be found. ON Semiconductor objects to any further search or production as unduly burdensome and/or oppressive.

36. As to the location of the document production, ON Semiconductor will discuss with Samsung appropriate arrangements for the inspection and copying of documents. The schedule for a method of handling such inspection and/or copying shall be arranged between counsels for the parties.

37. ON Semiconductor's discovery and investigation in connection with this case are continuing. As a result, ON Semiconductor's responses are limited to information obtained and reviewed to date, and are given without prejudice to ON Semiconductor's right to amend or supplement its responses after considering information obtained or reviewed through further discovery or investigation.

SPECIFIC OBJECTIONS AND RESPONSES

Subject to the foregoing general objections, all of which are incorporated by reference below in each separate answer, ON Semiconductor responds to the interrogatories as follows.

INTERROGATORY NO. 1.

Identify each claim of the ON Semiconductor Patents-in-Suit that Defendants allege has been infringed by Plaintiffs, and describe in detail each and every factual and legal basis for Defendants' allegation that Plaintiffs have infringed that claim. Each allegedly infringing product, apparatus, device, process, or method shall be identified by name, if known, or by any product, device, or apparatus which, when used, allegedly results in the practice of the claimed method or process. For each such claim, the detailed description shall include, without limitation:

- an identification of the date on which Defendants first became aware of Plaintiffs' alleged infringement, including a detailed description, for each ON Semiconductor Patent-in-Suit, explaining the date and circumstances under which Defendants first became aware of Plaintiffs' alleged infringement, and an identification of all documents concerning and witnesses with knowledge of such first awareness.
- an identification of every product, components thereof, and product containing same, including any apparatus, device, process, method, act, or other instrumentality made, used, offered for sale, sold, or imported by Plaintiffs that Defendants allege infringes the claim, either directly or indirectly;
- an identification and description in a claim chart (on a product-by-product basis) of how each claim limitation is allegedly found in each of the products that Defendants allege infringe the claim and whether each such limitation is found literally or under the doctrine of equivalents;
- whether such infringement is alleged to be direct, induced or contributory in nature; for each claim alleged to be indirectly infringed by Plaintiffs, identify all entities Defendants allege directly infringe and describe in detail all acts by each such entity and by Plaintiffs that Defendants contend constitute infringement of each such claim; and
- an identification of all documents and things on which Defendants rely in support of their contentions, as well as the identity of all individuals knowledgeable concerning the factual or legal bases for Defendants' allegations and a description of the subject matter known by each such individual.

RESPONSE TO INTERROGATORY NO. 1:

ON Semiconductor objects to this interrogatory as vague and ambiguous. In particular, ON Semiconductor objects to the terms "detailed description," "circumstances under which Defendants first became aware ...," "claim chart," and "subject matter" as vague and

ambiguous. ON Semiconductor further objects to this interrogatory as unduly burdensome as it seeks the identification of “each and every factual and legal basis,” “each allegedly infringing product, apparatus, device, process, or method ...,” “all documents,” “all individuals,” and “every product, components thereof, and product containing same.” ON Semiconductor further objects to this interrogatory as compound. ON Semiconductor objects to this interrogatory as premature. ON Semiconductor further objects to this interrogatory to the extent that it seeks information that is not relevant to any claim or defense of any party. ON Semiconductor further objects to this interrogatory to the extent that it seeks information not within the custody or control of ON Semiconductor. ON Semiconductor further objects to this interrogatory to the extent it seeks information that is equally or better accessible to Samsung. ON Semiconductor further objects to this interrogatory to the extent it prematurely calls for the disclosure of expert opinion. ON Semiconductor further objects to this interrogatory to the extent it calls for information protected from discovery by the work product doctrine, the attorney-client privilege, or any other privilege.

Subject to and without waiving its specific and general objections, ON Semiconductor responds as follows:

U.S. Patent No. 6,362,644

ON Semiconductor first became aware that U.S. Patent No. 6,362,644 may be relevant to Samsung’s products based on publicly available literature from Samsung’s website (www.samsung.com). ON Semiconductor communicated its awareness to Samsung on September 15, 2005.

On information and belief, at least claims 6-10, 12, and 16 of the ’644 patent are infringed by Samsung products that implement on-die termination within a semiconductor

package with pins for receiving data signals (e.g., DQ0, DQ1, etc.), pins for receiving termination signals (e.g., VDDQ, VSSQ, etc.), pins for receiving power (e.g., VDD), and having a semiconductor die within the package which operates from the received power and having terminations between the data pins and the termination pins (e.g., termination resistors between DQ0 and VDDQ or between DQ1 and VSSQ). The infringing Samsung products include, but are not limited to, the following: K4T1G044QA, K4T1G044QC, K4T1G084QA, K4T1G084QC, K4T1G164QA, K4T1G164QC, K4T2G044QM, K4T2G084QM, K4T51043QC, K4T51043QE, K4T51083QC, K4T51083QE, K4T51163QC, K4T56043QF, K4T56043QG, K4T56083QF, K4T56083QG, M378T2863AZ3, M378T2863CZ3, M378T2953CZ3, M378T2953EZ3, M378T3354CZ3, M378T3354EZ3, M378T5663AZ3, M378T5663CZ3, M378T5763MZ3, M378T6453FZ3, M378T6553CZ3, M378T6553EZ3, M391T2863AZ3, M391T2953CZ3, M391T2953EZ3, M391T5663AZ3, M391T5663CZ3, M391T5763MZ3, M391T6453FZ3, M391T6553CZ3, M391T6553EZ3, M392T2863CZA, M392T2950CZA, M392T2950EZA, M392T2953CZA, M392T2953EZA, M392T5160CJA, M392T5660CZA, M392T5663CZA, M392T6553CZA, M392T6553EZA, M393T1K66MZ3, M393T1K66MZA, M393T2863AZ3, M393T2863AZA, M393T2863CZ3, M393T2863CZA, M393T2950CZ3, M393T2950CZA, M393T2950EZ3, M393T2950EZA, M393T2953CZ3, M393T2953CZA, M393T2953EZ3, M393T2953EZA, M393T3253FZ3, M393T3253GZ3, M393T5160CZ0, M393T5160CZ4, M393T5160CZA, M393T5166AZ4, M393T5166AZA, M393T5168AZ0, M393T5263MZ3, M393T5263MZA, M393T5660AZ3, M393T5660AZA, M393T5660CZ3, M393T5660CZA, M393T5663AZ3, M393T5663AZA, M393T5663CZ3, M393T5663CZA, M393T5750CZ3, M393T5750CZ4, M393T5750CZA, M393T5750EZ3, M393T5750EZ4, M393T5750EZA, M393T6450FZ3, M393T6450GZ3, M393T6453FZ3, M393T6453GZ3, M393T6553CZ3,

M393T6553CZA, M393T6553EZ3, M393T6553EZA, M395T2953CZ4, M395T2953EZ4, M395T6553CZ4, M395T6553EZ4, M470T2864AZ3, M470T2864CZ3, M470T2953CZ3, M470T2953EZ3, M470T3354CZ3, M470T3354EZ3, M470T5663CZ3, M470T5669AZ0, M470T6464AZ3, M470T6464CZ3, M470T6554CZ3, M470T6554EZ3. Samsung has not yet produced documents regarding all the products it has sold nor has it produced documents describing the operation of its products. ON Semiconductor therefore reserves its right to supplement or amend this interrogatory as Samsung produces responsive documents and as ON Semiconductor's analysis and investigation proceeds.

ON Semiconductor asserts that Samsung's products directly infringe the claims of the '644 patent, but as responsive documents are produced by Samsung, ON Semiconductor may also assert that Samsung is contributing to or inducing infringement by others. ON Semiconductor notes that discovery is at an early stage in the present case and that its investigation and analysis is ongoing. Accordingly, ON Semiconductor reserves its right to supplement or amend the asserted claims as well as the products accused of infringing.

The following chart demonstrates the manner in which each of the accused products literally infringes the asserted claims. To the extent any element of the claims is determined not to be literally present, ON Semiconductor also asserts that the chart below demonstrates that such limitations are present under the doctrine of equivalents. ON Semiconductor notes that discovery in the present case has only recently begun and that Samsung has not yet produced responsive technical documents. ON Semiconductor therefore reserves its right to amend or supplement its response subject to its ongoing investigation.

'644 Patent	Infringement
6. (Independent) An integrated circuit, comprising: a semiconductor package having first and second pins respectively adapted for receiving first and	Samsung's DDR2 SDRAM are compliant with JEDEC's DDR2 SDRAM

'644 Patent	Infringement
<p>second data signals, third and fourth pins for respectively receiving first and second termination signals, and a supply pin coupled for receiving a power supply voltage;</p>	<p>Specification. The JEDEC standard (e.g., JESD79-2C) describes the DDR2 SDRAM as being contained within an integrated circuit (IC) with a ball grid array for providing inputs and outputs. The DDR2 SDRAM IC includes a semiconductor package with a ball grid array for providing inputs and outputs.</p> <p>In “variation DJ-z without supporting bass,” for example, the IC uses the following pinout: C8 – DQ0 (first pin) C2 – DQ1 (second pin) C9 – VDDQ (third pin) D2 – VSSQ (fourth pin) H9 – VDD (supply pin)</p> <p>DQ0 and DQ1 (as well as DQ2 and DQ3) are described as bidirectional input/output data signals.</p> <p>VDDQ is described as receiving a first termination signal through at least one resistor.</p> <p>VSSQ is described as receiving a second termination signal through at least one resistor.</p> <p>VDD is described as supplying the positive power supply (1.8 V +/- 0.1 V).</p>
<p>and a semiconductor die housed in the semiconductor package for operating from the power supply voltage, and having a first load element coupled between the first and third pins to terminate the first data signal, and a second load element coupled between the second and fourth pins to terminate the second data signal.</p>	<p>The package for the DDR2 SDRAM is described as containing die that operate from the power supply (VDD).</p> <p>The DDR2 SDRAM is described as having a first load element (e.g., Rval1) that is coupled between the first (e.g., C8) and third (e.g., C9) pins to terminate the first data signal (e.g., DQ0).</p> <p>The DDR2 SDRAM is described as having a second load element (e.g., Rval1) that is coupled between the second (e.g., C2) and</p>

'644 Patent	Infringement
	fourth (e.g., D2) pins to terminate the second data signal (e.g., DQ1).
7. The integrated circuit of claims 6, wherein the first and second load elements are resistors.	The various load elements are described as resistors (e.g., Rval1-Rval3).
8. The integrated circuit of claim 6, wherein the semiconductor die includes a receiver circuit having first and second inputs coupled to the first and second pins, respectively.	The DDR2 SDRAM is described as having a receiver circuit (DRAM input buffers) that is connected to the first and second inputs (e.g., DQ0 and DQ1).
9. The integrated circuit of claim 6, wherein the semiconductor die includes a driver circuit having first and second outputs coupled to the first and second pins, respectively.	The DDR2 SDRAM is described as having a driver circuit (DRAM output buffers) that is connected to the first and second inputs (e.g., DQ0 and DQ1)
10. The integrated circuit of claim 6, wherein the first data signal is from a first logic family, and the third pin is coupled for receiving a first termination voltage characteristic of the first logic family.	The first data signal (e.g. DQ0) is from a logic family (SSTL-1.8) operating at 1.8 V and the third pin (e.g. C9) is configured to receive a termination signal characteristic of the first logic family (e.g., VDDQ = 1.8 V).
12. (Independent) A method of operating an integrated circuit, comprising the steps of:	
applying first and second logic signals to first and second pins, respectively, of a semiconductor package of the integrated circuit;	<p>Samsung's DDR2 SDRAM are compliant with JEDEC's DDR2 SDRAM Specification. The JEDEC standard (e.g., JESD 79-2C) describes the DDR2 SDRAM as being contained within an IC with a ball grid array for providing inputs and outputs. The DDR2 SDRAM IC includes a semiconductor package with a ball grid array for providing inputs and outputs.</p> <p>In "variation DJ-z without supporting balls", for example, the IC provides the following ball designations: C8 – DQ0 (first logic signal at first pin) C2 – DQ1 (second logic signal at second pin) DQ0 and DQ1 (as well as DQ2 and DQ3) are described as bidirectional input/output data signals.</p>
and loading the first and second logic signals with first and second load elements, respectively, of the integrated circuit, where the first and second load elements are coupled to third and fourth pins of the semiconductor package to provide a programmable	<p>The DDR2 SDRAM IC includes a semiconductor package with a ball grid array for providing inputs and outputs.</p> <p>The IC provides the following ball</p>

'644 Patent	Infringement
<p>termination for the first and second logic signals.</p>	<p>designations: C9 – VDDQ (third pin) D2 – VSSQ (fourth pin) H9 – VDD (supply pin)</p> <p>VDDQ is described as receiving a terminating signal through at least one resistor.</p> <p>VSSQ is described as receiving a terminating signal through at least one resistor.</p> <p>The DDR2 SDRAM loads the first logic signal (e.g., DQ0) with a first load element (e.g., Rval1) that is coupled to the third pin (e.g., C9).</p> <p>The DDR2 SDRAM loads the second logic signal with a second load element (e.g., Rval1) that is coupled to the fourth pin (e.g., D2).</p> <p>Programmable termination for the first (e.g., DQ0) and second (e.g., DQ1) logic signals is provided through VDDQ and VSSQ in conjunction with the multiple switches (sw1, sw2).</p>
<p>16. The integrated logic circuit of claim 12, further comprising the step of applying a power supply voltage to a fifth pin of the semiconductor package to bias the integrated circuit.</p>	<p>The DDR2 SDRAM IC includes a semiconductor package with a ball grid array for providing inputs and outputs.</p> <p>The IC provides the following ball designations: H9 – VDD (fifth pin)</p> <p>VDD is described as supplying the positive power supply (1.8 V +/- 0.1 V).</p> <p>The package for the DDR2 SDRAM is described as containing a die that operates from the power supply (VDD).</p>

U.S. Patent No. 5,563,594

ON Semiconductor first became aware that U.S. Patent No. 5,563,594 may be relevant to Samsung's products based on publicly available literature from Samsung's website (www.samsung.com). ON Semiconductor communicated its awareness to Samsung on September 15, 2005.

On information and belief, at least claim 8 of the '594 patent is infringed by Samsung memory products that implement a parallel to serial data conversion (e.g., a multi-bit pre-fetch) to implement multiplexing in a burst read operation circuit (e.g., a down counter for implementing interleave mode data transfer). The infringing Samsung products include, but are not limited to, the following: K4H1G0438A, K4H1G0638C, K4H1G0738C, K4H1G0838A, K4H2G0638A, K4H510438C, K4H510638E, K4H510638H, K4H510738E, K4H510738H, K4H510838C, K4H510838D, K4H511638C, K4H511638D, K4H560438E, K4H560438H, K4H560838E, K4H560838H, K4H561638H, K4X28163PH, K4X51163PC, K4X51323PC, K4X51323PE, K4X56163PG, K4X56323PG, M312L2820EG(Z)0, M312L2820HZ0, M312L2828ET(U)0, M312L2828HU0, M312L2920CUS, M312L2920CZ0, M312L2923CUS, M312L2923CZ0, M312L3223EG(Z)0, M312L3223ET(U)S, M312L3223HUS, M312L3223HZ0, M312L5128AU0, M312L5128AU1, M312L5620AUS, M312L5623AUS, M312L5628CU0, M312L5720CZ0, M312L6420EG(Z)0, M312L6420ET(U)S, M312L6420HUS, M312L6420HZ0, M312L6423EG(Z)0, M312L6423ET(U)S, M312L6423HUS, M312L6423HZ0, M312L6523CUS, M312L6523CZ0, M368L2923CUN, M368L2923DUN, M368L3223ET, M368L3223HUS, M368L3324CUS, M368L3324DUS, M368L6423ET(U)M, M368L6423ET(U)N, M368L6423HUN, M368L6523CUS, M368L6523DUS, M381L2923CUM, M381L2923DUM, M381L3223ET(U)M, M381L3223HUM, M381L6423ET(U)M,

M381L6423HUM, M381L6523CUM, M381L6523DUM, M470L3224HU0, M470L3324CU0, M470L3324DU0, M470L6524CU0. Samsung has not yet produced documents regarding all the products it has sold nor has it produced documents describing the operation of its products. ON Semiconductor therefore reserves its right to supplement or amend this interrogatory as Samsung produces responsive documents and as ON Semiconductor's analysis and investigation proceeds.

ON Semiconductor asserts that Samsung's products directly infringe the claims of the '594 patent, but as responsive documents are produced by Samsung, ON Semiconductor may also assert that Samsung is contributing to or inducing infringement by others. ON Semiconductor notes that discovery is at an early stage in the present case and that its investigation and analysis is ongoing. Accordingly, ON Semiconductor reserves its right to supplement or amend the asserted claims as well as the products accused of infringing.

The following chart demonstrates the manner in which each of the accused products literally infringes the asserted claims. To the extent any element of the claims is determined not to be literally present, ON Semiconductor also asserts that the chart below demonstrates that such limitations are present under the doctrine of equivalents. ON Semiconductor notes that discovery in the present case has only recently begun and that Samsung has not yet produced responsive technical documents. ON Semiconductor therefore reserves its right to amend or supplement its response subject to its ongoing investigation.

'594 Patent	Infringement
<p>8. (Independent) A data conversion circuit, comprising:</p> <p>a register having an input coupled for receiving parallel input data and having an output;</p>	<p>See for example, the data sheet for Samsung's product K4X56163PG - L(F)E/G (Mobile-DDR SDRAM). The Samsung products incorporate a parallel to serial data conversion circuit in its Burst Read Operation.</p>

'594 Patent	Infringement
	As described the DDR SDRAM implements a "2-bit prefetch" which stores 32 bits of data prior to sensing a next set of data.
a multiplexer having an input coupled to said output of said register for providing serial data;	The "2-bit prefetch" alternatively outputs (i.e., multiplexes) 16-bit halves of the 32 bits of data stored in the register.
a comparator having first and second inputs and an output, said first input receiving a first control signal, said second input receiving a second control signal, said output providing a compare signal having a first state when said first and second control signals match; and	As described, Samsung's DDR SDRAM includes a Timing Register whose functionality includes comparator operations. The Timing Register receives a first control signal such as the Read command (READ A), a second control signal such as CK (clock) high, and has an output that provides a compare signal such as a Read Burst signal when READ A and CK match.
a down counter responsive to said compare signal for initializing a count value and responsive to a clock signal for counting down to generate a transfer data signal having a symmetric duty cycle to enable transfer of said parallel input data to said register.	The DDR SDRAM further includes a down counter operable for counting down from 7 (x111) to 0 (x000). The down counter is responsive to the compare signal (e.g., Read Burst signal) to initialize a count value indicated by the starting address (e.g., A0-A9). The Mode Register may select Interleave or Sequential burst and Length (e.g., 2, 4, 8). The down counter generates a transfer data signal with a symmetric duty cycle to enable transfer of parallel input data to the "2-bit prefetch".

U.S. Patent No. 5,361,001

ON Semiconductor first became aware that U.S. Patent No. 5,361,001 may be relevant to Samsung's products based on publicly available literature from Samsung's website (www.samsung.com). ON Semiconductor communicated its awareness to Samsung on April 24, 2006.

On information and belief, claim 4 of the '001 patent is infringed by methods performed by Samsung products that implement an on-die termination (ODT) scheme where on-die terminations (e.g., termination resistors) are either enabled or disabled by a latched on-die termination control circuit that depends on the presence of certain memory operations (e.g., READ and NOP), wherein the state of the on-die termination may be loaded and stored in a mode register. The infringing Samsung products include, but are not limited to, the following: K4J55323QG, K4J55323QG, K4J52324QE, K4J52324QE. Samsung has not yet produced documents regarding all the products it has sold nor has it produced documents describing the operation of its products. ON Semiconductor therefore reserves its right to supplement or amend this interrogatory as Samsung produces responsive documents and as ON Semiconductor's analysis and investigation proceeds.

ON Semiconductor asserts that Samsung's products directly infringe the claims of the '001 patent, but as responsive documents are produced by Samsung, ON Semiconductor may also assert that Samsung is contributing to or inducing infringement by others. ON Semiconductor notes that discovery is at an early stage in the present case and that its investigation and analysis is ongoing. Accordingly, ON Semiconductor reserves its right to supplement or amend the asserted claims as well as the products accused of infringing.

The following chart demonstrates the manner in which methods performed by each of the accused products literally infringes the asserted claims. To the extent any element of the claims is determined not to be literally present, ON Semiconductor also asserts that the chart below demonstrates that such limitations are present under the doctrine of equivalents. ON Semiconductor notes that discovery in the present case has only recently begun and that

Samsung has not yet produced responsive technical documents. ON Semiconductor therefore reserves its right to amend or supplement its response subject to its ongoing investigation.

'001 Patent	Infringement
<p>4. (Independent) A method of analog trimming, comprising the steps of:</p> <p>enabling conduction through a passive element in response to a first state of a control signal;</p>	<p>This claim is applicable to Samsung's products having so-called "on-die termination" ("ODT"), in which on-die terminations for certain signals (e.g., DQ and RDQS signals) are either enabled or disabled depending on the occurrence of certain operations (e.g., a READ command and a NOP).</p> <p>Samsung's GDDR3 products enable conduction through a passive element (e.g., an on-die termination resistor) in response to a first state of a control signal (e.g., a state of a control signal that indicates that a READ command is not in progress, such as after Samsung's GDDR3 products receive a NOP). For example, the GDDR3 SDRAM will enable DQ and RDQS on die termination after DQ and RDQS have been disabled for BL/2+2CK clock pulses if a READ command is not received within an appropriate time.</p>
<p>disabling conduction through said passive element in response to a second state of said control signal;</p>	<p>Samsung's GDDR3 products disable conduction through the passive element (e.g., the on-die termination resistor) in response to a second state of the control signal (e.g., a state of the control signal that indicates that a READ command is in progress).</p>
<p>activating said control signal in response to a data signal to enable and disable said conduction through said passive element, said activating step including the steps</p>	<p>Samsung's GDDR3 products activate the control signal in response to a data signal (e.g., a decoded READ command) to enable and disable conduction through the termination resistor.</p>
<p>(a) latching said data signal, and</p>	<p>Samsung's GDDR3 products latch the READ command because they are capable of receiving a subsequent command encoded on the same IC pins before they begin to actually perform the READ</p>

'001 Patent	Infringement
	command by outputting data and disabling the on-die termination.
(b) logically combining said data signal with a logic signal for providing said control signal; and	Samsung's GDDR3 products logically combine the data signal (e.g., the decoded READ command) with a separate logic signal from the Extended Mode Register (EMRS) (e.g., EMRS[A3:A2] that is capable of separately enabling or disabling the on-die termination) for providing the control signal.
setting said control signal to a fixed value after removal of said data signal.	Samsung's GDDR3 products set the control signal to a fixed value after removal of the data signal (e.g., the decoded READ command). After removal of the data signal, Samsung's GDDR3 products are capable of receiving a LOAD MODE REGISTER command ("The Load Mode Register command can only be issued when all banks are idle, and a subsequent executable command cannot be issued until tMRD is met."). More particularly, in response to receiving the LOAD MODE REGISTER command with EMRS[3:2]=00 (i.e., ODT disable), the on-die terminations are set to a fixed value (a disabled state). The Extended Mode Register is programmed via the LOAD MODE REGISTER command to the Extended Mode Register, and will retain the stored information until it is programmed again or the device loses power.

U.S. Patent No. 5,000,827

ON Semiconductor first became aware that U.S. Patent No. 5,000,827 may be relevant to Samsung's products based on publicly available literature from Samsung's website (www.samsung.com). ON Semiconductor sued Samsung for infringement of this patent in the Eastern District of Texas on December 4, 2006.

On information and belief, claims 1 and 2 of the '827 patent are infringed by processes used to make Samsung products that include plated structures such as "bumped die" or

“wafer level packaging” with a pitch of less than about 150 microns (um). The infringing Samsung products include, but are not limited to, products formed with metallized bumps, such as those formed by the Wafer-level Fabricated Package (WFP) package type. Samsung has not yet produced documents regarding all the products it has sold nor has it produced documents describing the processes used to make its products. ON Semiconductor therefore reserves its right to supplement or amend this interrogatory as Samsung produces responsive documents and as ON Semiconductor’s analysis and investigation proceeds.

ON Semiconductor asserts that the processes used to make Samsung’s products directly infringe the claims of the ’827 patent, but as responsive documents are produced by Samsung, ON Semiconductor may also assert that Samsung is contributing to or inducing infringement by others. ON Semiconductor notes that discovery is at an early stage in the present case and that its investigation and analysis is ongoing. Accordingly, ON Semiconductor reserves its right to supplement or amend the asserted claims as well as the products accused of infringing.

The following chart demonstrates the manner in which each of the accused methods literally infringes the asserted claims. To the extent any element of the claims is determined not to be literally present, ON Semiconductor also asserts that the chart below demonstrates that such limitations are present under the doctrine of equivalents. ON Semiconductor notes that discovery in the present case has only recently begun and that Samsung has not yet produced responsive technical documents. ON Semiconductor therefore reserves its right to amend or supplement its response subject to its ongoing investigation.

Claim Term (’827 Patent)	Comments
1. A method of forming metallized bumps on predetermined terminal areas of a planar substrate, said bumps being of substantially uniform height across said substrate, wherein said method comprises:	On information and belief, Samsung implements cup plating methods for small pitch geometries for products formed with metallized bumps, such as those formed in the “WFP” package type. On further information and belief, Samsung implements at least one of the following cup plating machines from the identified manufacturer: SlimCell ECP (Applied Materials); Sable Systems (Novellus); Raider ECD/ECD310 (SemiTool). Samsung has not yet produced responsive documents. Accordingly, ON Semiconductor reserves its right to supplement or amend these infringement contentions.
(a) providing a planar substrate having thereon a multiplicity of terminal areas;	A semiconductor wafer that is to be plated is the planar substrate on which there are multiple exposed terminal areas to be plated.
(b) applying an electrical potential having a first electrical polarity to said terminal areas;	Electroplating using a cup plater requires the application of electricity having a positive (anode) and negative (cathode) polarity. For example, the wafer may act as the cathode and thereby cause the electrical polarity to be applied to the terminal areas.
(c) applying an electrical potential having a second electrical polarity to an electrical terminal immersed in a container of an electroplating solution;	Electroplating using a cup plater requires the application of electricity having a positive (anode) and negative (cathode) polarity. For example, the plater may act as the anode.
(d) exposing said substrate to said electroplating solution to permit the growth of said metallization bumps on said terminal areas;	In order for electroplating to occur, the substrate must be exposed to the electroplating solution. The exposed terminal areas can then collect metal ions that adhere to the terminal areas.
(e) controlling the growth of said metallization bumps in a predetermined region of said substrate by altering the metallic ion concentration of said electroplating solution in said predetermined region;	The cup plating methods believed to be implemented by Samsung change and control the metallic ion concentration by various methods such as those described below.
(f) providing said container with an opening whose shape approximates that of said substrate;	Each of the cup platers of the group believed to be used by Samsung identified

Claim Term (’827 Patent)	Comments
	above provides an opening whose shape approximates that of the substrate (e.g., circular).
(g) positioning said substrate proximate to said container opening;	In order to expose the wafer and its terminal areas to the metallic ion solution, the cup plater must position the wafer proximate to the cup opening.
(h) providing an inlet within said container for pumping said solution into said container, said solution exiting said container through said opening;	Each of the cup platers of the group believed to be used by Samsung identified above provides an inlet for pumping solution into the cup, and allows the solution to exit the container through the opening.
wherein said metallic ion concentration of said electroplating solution is changed by:	The growth of bumps on the terminal areas of the bumps are controlled by several methods including changing the size of the cup opening, changing the spacing between the cup and the wafer/terminal areas, or altering the flow of the metallic ion solution.
(i) in step (f) altering the size of said opening;	Each of the cup platers of the group believed to be used by Samsung identified above alters the size of the opening by providing a cup size corresponding to the size of the substrate. For example, each such cup plater provides separate cups having different sizes for 200 millimeter (mm) and 300 mm wafer sizes.
(j) in step (g) altering the distance of said substrate from said container opening; and	Each of the cup platers of the group believed to be used by Samsung identified above alters the distance of the substrate from the container opening by providing a height adjustment.
(k) in step (h) altering the flow rate of said solution through said opening.	Each of the cup platers of the group believed to be used by Samsung identified above alters the flow rate of the solution through the opening by providing a flow rate adjustment.
2. The method of according to claim 1, wherein said metallization bumps comprise metal selected from the group consisting of silver and tin.	Silver and tin are common metals used for the plating of terminal areas on wafers and packages.

INTERROGATORY NO. 2:

For each ON Semiconductor Patent-in-Suit, state whether you contend that Plaintiffs' alleged infringement of the ON Semiconductor Patent-in-Suit is willful, and if so, explain in detail all factual and legal bases supporting that contention, identify all persons with knowledge of such contention, and identify all documents and things which support such contention.

RESPONSE TO INTERROGATORY NO. 2:

ON Semiconductor objects to this interrogatory as unduly burdensome as it seeks the identification of "all documents," "all factual and legal bases," and "all persons." ON Semiconductor further objects to this interrogatory as compound. ON Semiconductor objects to this interrogatory as premature. ON Semiconductor further objects to this interrogatory to the extent that it seeks information not within the custody or control of ON Semiconductor. ON Semiconductor further objects to this interrogatory to the extent it prematurely calls for the disclosure of expert opinion. ON Semiconductor further objects to this interrogatory to the extent it calls for information protected from discovery by the work product doctrine, the attorney-client privilege, or any other privilege.

Subject to and without waiving its specific and general objections, ON Semiconductor responds as follows: ON Semiconductor contends that Samsung has had knowledge of the '594 and '644 patents since at least the year 2005, has had knowledge of the '001 patent since at least the year 2006, and has had knowledge of the '827 patent since at least the year 2006.

People with knowledge of these contentions include Bradley Botsch, Andy Williams, Paul Polansky, Peter Green, Sonny Cave, Jay Shim, Jeong Woo Lee, Patrick Muir, Andrew Hong, and Bryan Richardson.

On December 4, 2006 ON Semiconductor filed a complaint alleging infringement of the '827 Patent by Samsung in the Eastern District of Texas. On December 12/26/06 Samsung filed a motion to change the venue of that action.

Discovery is continuing and ongoing, and as a result, ON Semiconductor reserves the right to supplement this response.

INTERROGATORY NO. 3:

Separately, for each claim of the ON Semiconductor Patents-in-Suit, state the date when and the location where the subject matter was first conceived, first described in a document, and first reduced to practice, both actually and constructively; identify each person or persons who contributed to or has contemporaneous knowledge of the above, describe his or her involvement, and identify each such person's employment status at the time; and identify any and all documents which corroborate, support, relate, reflect, or refer to any of the facts or other matters set out in the answer to this interrogatory.

RESPONSE TO INTERROGATORY NO. 3:

ON Semiconductor objects to this interrogatory as vague and ambiguous. In particular, ON Semiconductor objects to the terms "involvement," and "employment status," as vague and ambiguous. ON Semiconductor further objects to this interrogatory as unduly burdensome as it seeks the identification of "all documents." ON Semiconductor further objects to this interrogatory as compound. ON Semiconductor objects to this interrogatory as premature. ON Semiconductor further objects to this interrogatory to the extent that it seeks information that is not relevant to any claim or defense of any party. ON Semiconductor further objects to this interrogatory to the extent that it seeks information not within the custody or control of ON Semiconductor. ON Semiconductor further objects to this interrogatory to the extent it prematurely calls for the disclosure of expert opinion. ON Semiconductor further objects to this interrogatory to the extent it calls for information protected from discovery by the work product doctrine, the attorney-client privilege, or any other privilege.

Subject to and without waiving its specific and general objections, ON Semiconductor responds as follows:

Based upon ON Semiconductor's investigation to date, and subject to its general objections and the foregoing specific objections, ON Semiconductor will produce, in accordance with Fed. R. Civ. P. 33(d), responsive, non-privileged documents from which responsive information can be derived to the extent such documents exist and can be located after a reasonable search. ON Semiconductor reserves the right to supplement or amend its response to this interrogatory as discovery and ON Semiconductor's investigation in this case proceed.

INTERROGATORY NO. 4:

Identify each product ever made by or on behalf of Defendants or any licensee or other entity authorized to practice any claim of the ON Semiconductor Patents-in-Suit that Defendants contend practices any claim of the ON Semiconductor Patents-in-Suit, and for each identified product, (a) provide sufficient information to identify the product, the manufacturer and where the product was made and sold, (b) the first commercial manufacture, (c) state the time(s), location, and circumstances under which any such product was imported, demonstrated, offered for sale, and sold in the United States, (d) identify and state all sales of such products on an annual basis, (e) state whether it is your contention that such products were marked in compliance with 35 U.S.C. § 287 and, if so, identify the time period such products were marked and the specific marking language used, (f) identify each person or persons who contributed to or has contemporaneous knowledge of the above, describe his or her involvement, and identify each such person's employment status at the time; and (g) identify any and all documents which corroborate, support, relate, reflect, or refer to any of the facts or other matters set out in the answer to this interrogatory.

RESPONSE TO INTERROGATORY NO. 4:

ON Semiconductor objects to this interrogatory as vague and ambiguous. In particular, ON Semiconductor objects to the terms "practices any claim," "sufficient information," "time(s), location, and circumstances," "time period," contributed to or has contemporaneous knowledge," "employment status," and "corroborate, support, relate, reflect, or refer to" as vague and ambiguous. ON Semiconductor further objects to this interrogatory as unduly burdensome as it seeks the identification of "each product ever made," "all sales," "each

person or persons,” and “any and all documents.” ON Semiconductor further objects to this interrogatory as compound. ON Semiconductor objects to this interrogatory as premature. ON Semiconductor further objects to this interrogatory to the extent that it seeks information not within the custody or control of ON Semiconductor. ON Semiconductor also objects to this interrogatory to the extent that it seeks information that is not relevant to any claim or defense of any party. ON Semiconductor further objects to this interrogatory to the extent it calls for information protected from discovery by the work product doctrine, the attorney-client privilege, or any other privilege.

Subject to and without waiving its specific and general objections, ON Semiconductor responds as follows:

At least one of the claims of the '644 patent is embodied in the following products which are manufactured by ON Semiconductor in the United States: NB7L11M, NB7L14M, NB7L86M, NBSG111, NBSG11, NBSG14, NBSG16, 16M, 16VS, NBSG53A, NBSG86A, and MC100EP16T. These products have been marked per 35 U.S.C. § 287 by providing accompanying documentation with the products. These products have continued to be sold in the United States since the time of their first sale.

ON Semiconductor will produce, in accordance with Fed. R. Civ. P. 33(d), responsive, non-privileged documents from which responsive information can be derived to the extent such documents exist and can be located after a reasonable search. ON Semiconductor's investigation and analysis is ongoing. ON Semiconductor therefore reserves the right to supplement or amend its response to this interrogatory as discovery and ON Semiconductor's investigation in this case proceed.

INTERROGATORY NO. 5:

Identify all persons with whom Defendants have engaged in licensing discussions or negotiations pertaining to any of the ON Semiconductor Patents-in-Suit, whether or not a license was concluded, including in each respective instance, an identification of what ON Semiconductor Patents-in-Suit were involved, the date of execution of any license, any royalty rates or other payments set forth in any executed or draft license or proposed in any discussions or negotiations, and all documents related to such discussions or negotiations.

RESPONSE TO INTERROGATORY NO. 5:

ON Semiconductor objects to this interrogatory as vague and ambiguous. In particular, ON Semiconductor objects to the terms “licensing discussions or negotiations,” “involved,” “proposed,” and “related to” as vague and ambiguous. ON Semiconductor further objects to this interrogatory as unduly burdensome as it seeks the identification of “all persons,” “any royalty rates or other payments . . . proposed in any discussions or negotiations,” and “all documents.” ON Semiconductor further objects to this interrogatory as compound. ON Semiconductor objects to this interrogatory as premature. ON Semiconductor objects to this interrogatory to the extent that it requests discovery beyond the scope of that required by the Federal Rules of Evidence. ON Semiconductor further objects to this interrogatory to the extent that it seeks information not within the custody or control of ON Semiconductor. ON Semiconductor further objects to this interrogatory to the extent it seeks information that is equally or better accessible to Samsung. ON Semiconductor further objects to this interrogatory to the extent it calls for information protected from discovery by the work product doctrine, the attorney-client privilege, or any other privilege.

Subject to and without waiving its specific and general objections, ON Semiconductor responds as follows:

ON Semiconductor will produce, in accordance with Fed. R. Civ. P. 33(d), responsive, non-privileged documents from which responsive information can be derived to the

extent such documents exist and can be located after a reasonable search. ON Semiconductor reserves the right to supplement or amend its response to this interrogatory as discovery and ON Semiconductor's investigation in this case proceed.

INTERROGATORY NO. 6:

For each asserted claim of the ON Semiconductor Patents-in-Suit, describe in detail your contentions, if any, that objective indicia (including commercial success, long-felt need, failed attempts of others to solve a problem, initial skepticism, industry recognition and praise for patented products, and copying and imitation by others) support the alleged non-obviousness of each such claim. The detailed description should include, without limitation, an explanation of all factual and legal bases for each such contention, identification of all documents and things on which you rely in support of your contentions, identification of all persons knowledgeable concerning the factual or legal bases for your contentions, and a description of the subject matter known by each such person.

RESPONSE TO INTERROGATORY NO. 6:

ON Semiconductor objects to this interrogatory as vague and ambiguous. In particular, ON Semiconductor objects to the terms "describe in detail" and "description of the subject matter" as vague and ambiguous. ON Semiconductor further objects to this interrogatory as unduly burdensome as it seeks the identification of "all factual and legal bases," "all documents and things," and "all persons." ON Semiconductor further objects to this interrogatory as compound. ON Semiconductor further objects to this interrogatory to the extent that it seeks information not within the custody or control of ON Semiconductor. ON Semiconductor objects to this interrogatory to the extent it improperly and prematurely seeks discovery of contentions relating to obviousness of the ON Semiconductor Patents-in-Suit, for which Samsung bears the burden of proof by clear and convincing evidence. ON Semiconductor further objects to this interrogatory as it prematurely seeks expert testimony and information. ON Semiconductor further objects to this interrogatory to the extent it seeks information that is equally or better accessible to Samsung. ON Semiconductor further objects to this interrogatory

to the extent it calls for information protected from discovery by the work product doctrine, the attorney-client privilege, or any other privilege.

Subject to and without waiving its specific and general objections, ON Semiconductor responds as follows:

ON Semiconductor notes that this interrogatory requests expert opinion. The time for expert disclosures per Rule 26 has not yet come such that this interrogatory is premature. ON Semiconductor intends to present qualified experts whose expert opinions will respond to this interrogatory.

ON Semiconductor will produce, in accordance with Fed. R. Civ. P. 33(d), responsive, non-privileged documents from which responsive information can be derived to the extent such documents exist and can be located after a reasonable search. ON Semiconductor's investigation and analysis is ongoing. ON Semiconductor therefore reserves the right to supplement or amend its response to this interrogatory as discovery and ON Semiconductor's investigation in this case proceed.

ON Semiconductor further notes that this interrogatory seeks discovery of contentions relating to obviousness of the ON Semiconductor Patents-in-Suit, for which Samsung bears the burden of proof by clear and convincing evidence. ON Semiconductor will amend or supplement its response to this interrogatory should Samsung present an obviousness defense to the ON Semiconductor Patents-in-Suit.

INTERROGATORY NO. 7:

Explain in detail all facts pertaining to any instance in which an entity has contended that any claim of the ON Semiconductor Patents-in-Suit is invalid or unenforceable, including the identity of the entity who made such contention, the nature of the entity's contention that the claims were invalid or unenforceable, and all factual and legal bases in support of the entity's contention.

RESPONSE TO INTERROGATORY NO. 7:

ON Semiconductor objects to this interrogatory as vague and ambiguous. In particular, ON Semiconductor objects to the terms "contended," and "nature of the entity's contention." ON Semiconductor further objects to this interrogatory as unduly burdensome as it seeks the identification "in detail" of "all facts" "any instance," "all factual and legal bases." ON Semiconductor further objects to this interrogatory as compound. ON Semiconductor objects to this interrogatory as premature. ON Semiconductor objects to this interrogatory to the extent that it requests discovery beyond the scope of that required by the Federal Rules of Evidence. ON Semiconductor further objects to this interrogatory to the extent that it seeks information that is not relevant to any claim or defense of any party. ON Semiconductor further objects to this interrogatory to the extent that it seeks information not within the custody or control of ON Semiconductor. ON Semiconductor further objects to this interrogatory to the extent it seeks information that is equally or better accessible to Samsung. ON Semiconductor also objects to this interrogatory to the extent that it seeks information that is not relevant to any claim or defense of any party. ON Semiconductor further objects to this interrogatory to the extent it prematurely calls for the disclosure of expert opinion. ON Semiconductor further objects to this interrogatory to the extent it calls for information protected from discovery by the work product doctrine, the attorney-client privilege, or any other privilege.

Subject to and without waiving its specific and general objections, ON Semiconductor responds as follows:

ON Semiconductor will produce, in accordance with Fed. R. Civ. P. 33(d), responsive, non-privileged documents from which responsive information can be derived to the extent such documents exist and can be located after a reasonable search. ON Semiconductor

reserves the right to supplement or amend its response to this interrogatory as discovery and ON Semiconductor's investigation in this case proceed.

INTERROGATORY NO. 8:

For each patent search, prior art search, or patent investigation conducted by or for Defendants in connection with any of the ON Semiconductor Patents-in-Suit or the Samsung Patent-in-Suit, please identify the person(s) who made such search or investigation, state the date upon which such search or investigation was made, identify all patents and/or prior art found through such search or investigation, and identify all documents concerning such search or investigation.

RESPONSE TO INTERROGATORY NO. 8:

ON Semiconductor objects to this interrogatory as vague and ambiguous. In particular, ON Semiconductor objects to the term "patent search, prior art search, or patent investigation" as vague and ambiguous. ON Semiconductor further objects to this interrogatory as unduly burdensome as it seeks the identification of "all documents." ON Semiconductor further objects to this interrogatory as compound. ON Semiconductor objects to this interrogatory as premature. ON Semiconductor further objects to this interrogatory to the extent that it seeks information not within the custody or control of ON Semiconductor. ON Semiconductor also objects to this interrogatory to the extent that it seeks information that is not relevant to any claim or defense of any party. ON Semiconductor further objects to this interrogatory to the extent it calls for information protected from discovery by the work product doctrine, the attorney-client privilege, or any other privilege.

As its investigation proceeds, ON Semiconductor may supplement or amend its response to this interrogatory as necessary.

INTERROGATORY NO. 9:

For each of the ON Semiconductor Patents-in-Suit, identify all prior art and all alleged prior art known to Defendants that is relevant, or has been asserted by others to be relevant, to the ON Semiconductor Patent-in-Suit, any patent applications resulting in the ON

Semiconductor Patent-in-Suit, or any Counterparts, and separately state as to each item of prior art the date and circumstances under which Defendants first became aware thereof, and state if the prior art was known to the inventor named on the ON Semiconductor Patent-in-Suit or prosecuting attorneys of the ON Semiconductor Patent-in-Suit before the issue date of such patent.

RESPONSE TO INTERROGATORY NO. 9:

ON Semiconductor objects to this interrogatory as vague and ambiguous. In particular, ON Semiconductor objects to the terms “that is relevant,” and “any patent applications resulting in the ON Semiconductor Patent-in-Suit, or any Counterpart” as vague and ambiguous. ON Semiconductor further objects to this interrogatory as unduly burdensome as it seeks the identification of “all prior art,” and “all alleged prior art” “all documents.” ON Semiconductor further objects to this interrogatory as compound. ON Semiconductor objects to this interrogatory as premature. ON Semiconductor also objects to this interrogatory to the extent that it seeks information that is not relevant to any claim or defense of any party. ON Semiconductor further objects to this interrogatory to the extent it prematurely calls for the disclosure of expert opinion. ON Semiconductor further objects to this interrogatory to the extent it calls for information protected from discovery by the work product doctrine, the attorney-client privilege, or any other privilege.

Subject to and without waiving its specific and general objections, ON Semiconductor responds as follows:

ON Semiconductor will produce, in accordance with Fed. R. Civ. P. 33(d), responsive, non-privileged documents from which responsive information can be derived, including documents that have been asserted by others to be prior art to the ON Semiconductor Patents-in-Suit, to the extent such documents exist and can be located after a reasonable search.

INTERROGATORY NO. 10:

Identify all litigation, prosecution, or other administrative or legal proceedings worldwide, completed or ongoing, concerning any of the ON Semiconductor Patents-in-Suit or any Counterparts.

RESPONSE TO INTERROGATORY NO. 10:

ON Semiconductor objects to this interrogatory as vague and ambiguous. In particular, ON Semiconductor objects to the term "other administrative or legal proceedings worldwide" as vague and ambiguous. ON Semiconductor further objects to this interrogatory as compound. ON Semiconductor also objects to this interrogatory to the extent that it seeks information that is not relevant to any claim or defense of any party. ON Semiconductor further objects to this interrogatory to the extent it calls for information protected from discovery by the work product doctrine, the attorney-client privilege, or any other privilege.

Subject to and without waiving its specific and general objections, ON Semiconductor responds as follows:

Each of the ON patents-in-suit was prosecuted before the United States Patent and Trademark Office as follows: Application Serial No. 09/630,090 resulted in the '644 patent, Application Serial No. 298,715 resulted in the '594 patent, Application Serial No. 160,762 resulted in the '001 patent, and Application Serial No. 459,892 resulted in the '827 patent. Each of the ON patents-in-suit is also in suit in the Eastern District of Texas (Tyler Division) (Case No. 6:06-CV-523-LED).

INTERROGATORY NO. 11:

Separately and for each claim of the Samsung Patent-in-Suit, set forth in detail the entire basis for Defendants' contention that it is not infringing and has not infringed any claim in the Samsung Patent-in-Suit, and identify all documents and evidence that relate to such contentions and all persons who have knowledge of information relating to such contentions. Such detail should include, without limitation, an identification and description in a claim chart (on a product-by-product basis) of each claim limitation that is allegedly not found, literally or

under the doctrine of equivalents, in the methods used to manufacture each of Defendants' products having model numbers NCP5331 and MC33275D3.

RESPONSE TO INTERROGATORY NO. 11:

ON Semiconductor objects to this interrogatory as vague and ambiguous. In particular, ON Semiconductor objects to the term "claim chart (on a product-by-product basis)" as vague and ambiguous. ON Semiconductor further objects to this interrogatory as unduly burdensome as it seeks the identification of "entire basis," "all documents and evidence," and "all persons." ON Semiconductor further objects to this interrogatory as compound. Moreover, this interrogatory is unduly burdensome to the extent it seeks information with regard to claims that have not been asserted by Samsung. ON Semiconductor objects to this interrogatory as premature. ON Semiconductor further objects to this interrogatory to the extent it prematurely calls for the disclosure of expert opinion. ON Semiconductor further objects to this interrogatory to the extent it calls for information protected from discovery by the work product doctrine, the attorney-client privilege, or any other privilege.

Subject to and without waiving its specific and general objections, ON Semiconductor responds as follows:

ON Semiconductor notes that this interrogatory seeks expert opinion. The time for expert disclosures per Rule 26 has not yet come such that this interrogatory is premature. ON Semiconductor further notes that its investigation and analysis is ongoing. ON Semiconductor intends to present qualified experts who will opine regarding the absence of at least the following claim limitation: "removing remaining photoresist positioned on said insulation layer by plasma ashing to simultaneously form a protective oxide layer on said exposed top surface of said first conductive layer." Upon completion of its investigation and analysis and at a proper time as set forth by the Court and the Federal Rules of Civil Procedure, ON Semiconductor will disclose its

experts' opinions in the form of reports regarding ON Semiconductor's non-infringement of the Samsung patent-in-suit.

INTERROGATORY NO. 12:

Separately and for each claim of the Samsung Patent-in-Suit, identify all factual and legal bases for Defendants' contention that such claim is invalid for failing to comply with one or more requirements of 35 U.S.C. §§ 101, 102, 103 and/or 112, including a specific identification of all prior art and/or combinations of prior art upon which Defendants rely, and a description in claim chart form on an element-by-element basis of how each such alleged prior art and/or combinations of prior art support such contention.

RESPONSE TO INTERROGATORY NO. 12:

ON Semiconductor objects to this interrogatory as vague and ambiguous. In particular, ON Semiconductor objects to the term "claim chart form" as vague and ambiguous. ON Semiconductor further objects to this interrogatory as unduly burdensome as it seeks the identification of "all factual and legal bases." ON Semiconductor further objects to this interrogatory as compound. ON Semiconductor objects to this interrogatory to the extent it calls for a response to all the claims, particularly given that Samsung has only asserted that claim 8 may be infringed. ON Semiconductor objects to this interrogatory as premature. ON Semiconductor further objects to this interrogatory to the extent it prematurely calls for the disclosure of expert opinion. ON Semiconductor further objects to this interrogatory to the extent it calls for information protected from discovery by the work product doctrine, the attorney-client privilege, or any other privilege.

Subject to and without waiving its specific and general objections, ON Semiconductor responds as follows:

ON Semiconductor notes that this interrogatory seeks expert opinion. ON Semiconductor further notes that its investigation and analysis is ongoing. The time for expert disclosures per Rule 26 has not yet come such that this interrogatory is premature. ON

Semiconductor intends to present qualified experts who will demonstrate the invalidity of the asserted claim of the Samsung patent-in-suit. Upon completion of its investigation and analysis and at the proper time as set forth by the Court and the Federal Rules of Civil Procedure, ON Semiconductor will disclose its experts' opinions in the form of reports regarding the invalidity of the Samsung patent-in-suit.

ON Semiconductor notes that discovery in the present case is at an early stage, but nonetheless presents the following chart as an example of how the asserted claim of the Samsung patent-in-suit is invalid:

Samsung Patent-In-Suit	U.S. Patent No. 4,857,141
8. A method for forming an electrical connection on a semiconductor substrate between a first conductive layer and a second conductive layer through an intervening insulation layer formed over said first conductive layer, said method comprising the steps of:	"This invention relates to a method of forming contact holes or through holes in a semiconductor integrated circuit device, and more particularly, to improvement of the degree of the step coverage of a wiring metal layer." '141 Patent, 1:8-12.
forming a photoresist pattern on said insulation layer;	"Photoresist film 15 is formed on planarized SiO ₂ film 14." '141 Patent, 4:1-2.
after forming said photoresist pattern, forming a contact hole by selectively etching out exposed regions of said insulation layer to expose a top surface of said first conductive layer;	"SiO ₂ film 14 is selectively etched by an isotropic etching method with photoresist film 15 used as a mask." '141 Patent, 4:3-5. "After this, an anisotropic etching process such as an RIE process is effected to form hole 17 shown in FIG. 1B with photoresist film 15 used as a mask. The etching process is effected until hole 17 reaches first wiring layer 13." '141 Patent, 4:23-27.
removing remaining photoresist positioned on said insulation layer by plasma ashing to simultaneously form a protective oxide layer on said exposed top surface of said first conductive layer; and	"Then, photoresist film 15 is removed by an ashing process to provide a semiconductor structure of FIG. 1C." '141 Patent, 4:34-36. "Further, contaminants diffused from photoresist film 15 and a natural oxide film formed on wiring layer 13 which is the bottom surface of through hole 18 can be

Samsung Patent-In-Suit	U.S. Patent No. 4,857,141
	effectively removed by the second anisotropic etching process.” ’141 Patent, 5:9-13.
removing said oxide layer before forming said second conductive layer on said exposed top surface of said first conductive layer.	<p>“Then, photoresist film 15 is removed by an ashing process to provide a semiconductor structure of FIG. 1C.” ’141 Patent, 4:34-36</p> <p>“Further, contaminants diffused from photoresist film 15 and a natural oxide film formed on wiring layer 13 which is the bottom surface of through hole 18 can be effectively removed by the second anisotropic etching process.” ’141 Patent, 5:9-13.</p> <p>“Then, as shown in FIG. 1E, conductive metal layer 19 is formed on SiO₂ film 14 and in through hole 18. Conductive metal layer 19 is formed by vapor-depositing conductive material such as Al, Al-Si and Al-Si-Cu by a sputtering method.” ’141 Patent, 4:46-50.</p>

INTERROGATORY NO. 13:

Identify the person or persons most knowledgeable regarding each of your responses to all interrogatories asked by Plaintiff, and identify the specific interrogatory responses of which each is knowledgeable.

RESPONSE TO INTERROGATORY NO. 13:

ON Semiconductor objects to this interrogatory as vague and ambiguous. In particular, ON Semiconductor objects to the terms “most knowledgeable.” ON Semiconductor further objects to this interrogatory as unduly burdensome as it seeks the identification of an individual who is “most” knowledgeable.” ON Semiconductor further objects to this interrogatory as compound. ON Semiconductor objects to this interrogatory as premature. ON Semiconductor further objects to this interrogatory to the extent that it seeks information not within the custody or control of ON Semiconductor. ON Semiconductor further objects to this

interrogatory to the extent it prematurely calls for the disclosure of expert opinion. ON Semiconductor further objects to this interrogatory to the extent it calls for information protected from discovery by the work product doctrine, the attorney-client privilege, or any other privilege.

Subject to and without waiving its specific and general objections, ON Semiconductor responds as follows:

ON Semiconductor will identify the persons most knowledgeable regarding each of the responses to the interrogatories asked by Samsung in ON Semiconductor's Initial Disclosures.

MORRIS, NICHOLS, ARSHT & TUNNELL LLP



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Richard J. Bauer (#4828)
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JONES DAY
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Palo Alto, CA 94303
(650) 739-3939

May 24, 2007

840571

CERTIFICATE OF SERVICE

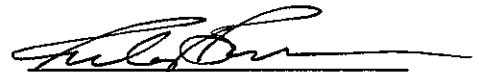
I, the undersigned, hereby certify that on March 26, 2007, copies of the foregoing were caused to be served upon the following in the manner indicated:

BY HAND AND EMAIL

John W. Shaw
Andrew A. Lundgren
YOUNG, CONAWAY, STARGATT & TAYLOR LLP
The Brandywine Building
1000 West Street
17th Floor
Wilmington, DE 19801

BY EMAIL

John M. Desmarais
James E. Marina
KIRKLAND & ELLIS
153 East 53rd Street
New York, NY 10022



Richard J. Bauer (#4828)

EXHIBIT 8

JONES DAY

1755 EMBARCADERO ROAD • PALO ALTO, CALIFORNIA 94303
TELEPHONE: (650) 739-3939 • FACSIMILE: (650) 739-3900

Guadalupe M. Garcia
Direct Number: (650) 739-3910
gmgarci@jonesday.com

January 30, 2008

BY E-MAIL

Jennifer J. Schmidt, Esq.
Kirkland & Ellis LLP
Citigroup Center
153 East 53rd Street
New York, New York 10022-4611

Re: *ON Semiconductor Corp. v. Samsung Electronics Co., Ltd.*
Civil Action No. 1:07-cv-00449 (JJF)
Samsung Electronics Co., Ltd. v. ON Semiconductor Corp.
Civil Action No. 1:06-cv-00720 (JJF)

Dear Ms. Schmidt:

I write in response to your letter of January 30, 2008.

It is you that mischaracterizes Samsung's production. Samsung's production was of very little substance. For example, it included approximately 130,000 pages of documents from Samsung's website, the bulk of which were printouts of Verilog and IBIS files that are essentially useless in printed form. Moreover, the schematics and other technical documents that were produced are seemingly a random collection of hard copy documents that may have been in the possession of certain custodians. There is no indication that the schematics or other information actually relate to any product ever produced by Samsung. And there is no indication that the random collection of documents completely describes the accused products.

What Samsung's production does show is that Samsung implements electronic design automation tools that include tools for laying out a circuit design and generating GDS2 files for use by a foundry. Moreover, Samsung's production demonstrates its use of schematic databases that are directly correlated to the GDS2 layout information. Where any individual circuit may include millions of transistors, Samsung's production has only provided a random sampling of a few thousand transistors across several products. The GDS2 and schematic database information, however, more properly describe the designs of Samsung's products. The GDS2 and schematic information is therefore central to this litigation and must be produced promptly.

Jennifer J. Schmidt, Esq.
January 30, 2008
Page 2

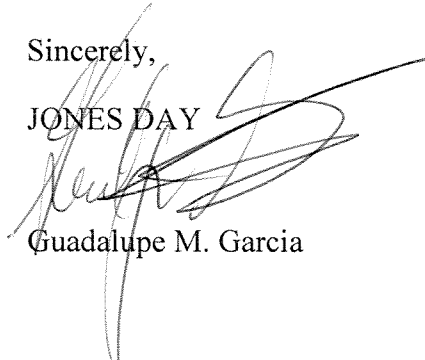
Regarding ON's '827 process patent, you mischaracterize our discovery requests. It is ON's position that processes for cup plating, including processes implemented using the various listed tools, infringe the claims of the '827 patent. You admit that Samsung implements the Novellus Sabre plating system. Accordingly, documents relating to such products as described in Requests Nos. 106-110, for example, and as outlined in my prior letter should be produced promptly.

In contrast, ON's production relating to Samsung's process patent included, among other things, the most central documents – process flows – necessary for evaluating ON's processes for forming electrical connections between conductive layers. Moreover, ON's production included documents describing and relating to such process flows. Furthermore, ON's production included images and failure analysis reports relating to the subject electrical connections.

Finally, because the prior legal and administrative proceeds relate to some of the same accused products, among other reasons, they are directly relevant to this matter. They should therefore be produced promptly.

Sincerely,

JONES DAY


Guadalupe M. Garcia

SVI-54471v1

EXHIBIT 9

JONES DAY

1755 EMBARCADERO ROAD • PALO ALTO, CALIFORNIA 94303
TELEPHONE: (650) 739-3939 • FACSIMILE: (650) 739-3900

Cora L. Schmid
Direct Number: (650) 739-3944
cschmid@jonesday.com

January 31, 2008

BY E-MAIL

Jennifer J. Schmidt, Esq.
Kirkland & Ellis LLP
Citigroup Center
153 East 53rd Street
New York, New York 10022-4611

Re: *ON Semiconductor Corp. v. Samsung Electronics Co., Ltd.*
Civil Action No. 1:07-cv-00449 (JJF)
Samsung Electronics Co., Ltd. v. ON Semiconductor Corp.
Civil Action No. 1:06-cv-00720 (JJF)

Dear Ms. Schmidt:

This letter confirms our discussion during our conference earlier today. Your colleague John Spaccarotell and you were present on behalf of Samsung while my colleague Guadalupe Garcia and I were present on behalf of ON Semiconductor. We would like to confirm and reiterate the following topics:

1) Samsung's Failure to Produce GDS2 and Schematic Database Information

We reiterate our demand for GDS2 and schematic database information for each accused Samsung product as defined in ON Semiconductor's Requests for Production of Documents and Things. As we discussed earlier today, in light of the short deadline remaining in this case, we demand that this information be produced as an entire system, including software and license keys to view the information in its native format.

You expressed that your initial position is that GDS2 and schematic database information is irrelevant to this action and does not need to be produced. You agreed that you would discuss this issue with your client, but were unable to give us a timeline for that discussion or any sense of when you will be able to tell us if you are revising your position.

We insist that this type of information is not only relevant but is *essential* to evaluating Samsung's claim of non-infringement of the '644, '594, and '001 patents, claims that Samsung itself initially raised before this Court. Such information is not extraordinary, but rather forms the basis for an infringement analysis in patent litigations focusing on circuit patents. In fact, we

Jennifer J. Schmidt, Esq.
January 31, 2008
Page 2

believe layout information is the only type of information that will directly describe by product the relevant circuitry of products that Samsung has sold. We further believe that schematic databases are necessary to understand the circuit structure depicted in the layout information.

2) Samsung's Failure to Produce Process Flows and Related Information

We reiterate our demand for process flows and related information for electroplating performed in the manufacture of each accused Samsung product as defined in ON Semiconductor's Requests for Production of Documents and Things, along with identification of the product(s) to which each process flow corresponds. You admitted that Samsung has relevant documents to be produced in your January 30, 2008, letter where you stated that Samsung uses Novellus Systems Inc.'s Sabre System. ON Semiconductor's document requests are specifically directed to information about "SAMSUNG PRODUCTS," which was defined to include "product made using . . . Novellus Systems Inc.'s Sabre System." We demand the process flows and other documentation involving the uses you have admitted of the Novellus Sabre System. These materials are responsive to ON Semiconductor's Request Nos. 106-110, among others.

You expressed in both your January 30, 2008, letter and in our conference earlier today that you believe you do not need to produce documents in response to these requests because, based on your current investigations Samsung does not manufacture "'bumped die' or wafer level packaging' with a pitch of less than about 150 microns (μm)." However, regardless of whether or not Samsung manufactures "'bumped die' or wafer level packaging' with a pitch of less than about 150 microns (μm)," ¹ ON Semiconductor is entitled to any documents Samsung may have which are relevant to ON Semiconductor's Request Nos. 106-110.

You argued during our conference that ON Semiconductor in effect limited the scope of discovery to which it was entitled in its response to Samsung's Interrogatory No. 1, in which ON Semiconductor stated: "On information and belief, claims 1 and 2 of the '827 patent are infringed by processes used to make Samsung products that include plated structures *such as* 'bumped die' or 'wafer level packaging' with a pitch of less than about 150 microns (μm)."
(Emphasis added). The language of ON Semiconductor's response demonstrates that your argument is spurious. ON Semiconductor showed that the "bumped die" discussed was merely one example through the use of the words "such as" when discussing types of structures that could be made using cup plating methods like those performed by the Sabre System. A single example cannot be used to limit ON Semiconductor's discovery, which, as discussed above, expressly includes documentation of Samsung's use of the Novellus Sabre System.

As further proof that Samsung's position is not correct, Samsung has taken an opposite view when asked if its own interrogatories likewise limit the scope of its own document requests.

¹ Incidentally, ON Semiconductor has a right to take discovery over whether or not this claim is true, and is not obligated to accept attorney statements that it is not.

Jennifer J. Schmidt, Esq.
January 31, 2008
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In Samsung's response to ON Semiconductor's Interrogatory No. 5, Samsung stated: "Samsung alleges upon information and belief that at least products NCP5331 and MC33275D3 were manufactured using the method of claim 8 of the '177 patent." Samsung made clear in our discussion that it does not believe it limited its document requests to only materials related to products NCP5331 and MC33275D3. We agree: ON Semiconductor has produced and will continue to produce documents, including process flows, regarding ON Semiconductor products that are not NCP5331 and MC33275D3, but that are responsive to Samsung's document requests. We demand that Samsung do likewise: produce documents, including process flows, that are responsive to ON Semiconductor Requests Nos. 106-110, including process flows and other documents relating to Samsung's use of the Novellus Sabre System.

3) Samsung's Failure to Produce Materials Related to Other Samsung Litigations and Administrative Proceedings Involving Samsung's Accused Products

We reiterate our demand for materials related to any legal or administrative proceeding involving the accused products, including district court proceedings involving Rambus and MOSAID and ITC proceedings. These materials are responsive to ON Semiconductor's Request No. 42.

You expressed that you do not believe such materials are relevant because they involve different patents, and your colleague even stated "I completely disagree with you" that such documents are relevant. However, as we discussed, these materials "appear[] reasonably calculated to lead to the discovery of admissible evidence," which is the standard enunciated for the proper scope of discovery under Fed. R. Civ. Pro. 26(b)(1). Materials from other proceedings regarding similar products that are accused in this case are likely to lead to the discovery of admissible evidence regarding, for example, damages (such as costs, sales, profits, and marketing plans for the accused products); the types of information Samsung creates and retains in the ordinary course of business regarding the accused products; and impressions made by one of ordinary skill in the art of circuits regarding the accused products.

4) ON Semiconductor's Production

You expressed that you would like more information about electron micrographs produced in ON Semiconductor's first production that contained no information about the underlying sample. We agreed to investigate how such images are stored in the ordinary course of business, and to produce any additionally relevant information about those images.

Samsung expressed no other concerns about the types of documents ON Semiconductor produced. This is to be expected: ON Semiconductor has produced the most crucial types of documents regarding Samsung's allegations that ON Semiconductor has infringed the '177 patent including process flows and electron micrographs. What is more, ON Semiconductor has not limited the scope of its production based on Samsung's interrogatory answers.

Jennifer J. Schmidt, Esq.
January 31, 2008
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ON Semiconductor's production is ongoing, and we plan to supplement our production soon. We regret that if Samsung does not produce the categories demanded above or propose a schedule for their production soon, we will be forced to seek relief from the Court.

Sincerely,

JONES DAY

A handwritten signature in black ink, appearing to read "Cora L. Schmid", written over the printed name.

Cora L. Schmid

SVI-54493v1

EXHIBIT 10

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

PROMOS TECHNOLOGIES, INC., :
 :
 Plaintiff, :
 :
 v. : Civil Action No. 06-788 JJF
 :
 FREESCALE SEMICONDUCTOR, INC., :
 :
 Defendant. :

ORDER

Whereas, Plaintiff filed a Motion To Compel Defendant, Freescale Semiconductor, Inc. to Produce Technical and Damages Documents Relating to Accused Products and to Appear for Document-Related Deposition (D.I. 55);

Whereas, the Court has considered the positions of the parties and finds that Defendant's responses have been insufficient with regard to all issues presented by Plaintiff.

NOW THEREFORE, IT IS HEREBY ORDERED that Plaintiff's Motion To Compel (D.I. 55) is **GRANTED**.

IT IS FURTHER ORDERED that:

- 1) Within twenty (20) days, Defendant shall:
- a. generate and produce the requested circuit diagrams to Plaintiff;
 - b. provide Plaintiff electronic copies of the RTL documentation. (The Court concludes that Paragraph 4 of the Protective Order does not apply to said documentation);

c. produce to Plaintiff pricing information and cost data for the accused products;

2) Defendant shall produce a Rule 30 (b)(6) Witness for Deposition as noticed by Plaintiff in the District of Delaware.

3) Decision is **RESERVED** on Plaintiff's request for attorneys' fees and cost pending the Court's further review of Defendant's conduct.

October 31, 2007
DATE


UNITED STATES DISTRICT JUDGE

EXHIBIT 11

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

SAMSUNG ELECTRONICS CO., LTD.,
SAMSUNG ELECTRONICS AMERICA, INC.,
SAMSUNG TELECOMMUNICATIONS
AMERICA GENERAL, L.L.C.,
SAMSUNG SEMICONDUCTOR, INC., and
SAMSUNG AUSTIN SEMICONDUCTOR L.L.C.,

Plaintiffs,

v.

ON SEMICONDUCTOR CORP.

and

SEMICONDUCTOR COMPONENTS
INDUSTRIES, LLC,

Defendants.

Civil Action No. 06-CV-0720 (***)

**PLAINTIFFS' OBJECTIONS AND RESPONSES TO DEFENDANTS'
FIRST SET OF INTERROGATORIES TO PLAINTIFFS**

Pursuant to Rules 26 and 33 of the Federal Rules of Civil Procedure, Plaintiffs Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., Samsung Telecommunications America General, LLC, Samsung Semiconductor, Inc., and Samsung Austin Semiconductor, LLC (collectively, "Samsung"), hereby respond and object to Defendants' First Set of Interrogatories.

Samsung reserves the right to supplement these responses and objections to the extent allowed by the Federal Rules of Civil Procedure and the Local Rules of this Court.

GENERAL OBJECTIONS

Samsung makes the following general objections to Defendants' First Set of Interrogatories, which apply to each interrogatory regardless of whether the general objections are specifically incorporated into the specific objections below.

1. Samsung objects to each interrogatory to the extent it seeks information that is protected from discovery by the attorney-client privilege or the attorney work-product doctrine, or that is otherwise protected from disclosure under the Federal Rules of Civil Procedure, the Federal Rules of Evidence, or the relevant statutory or case law.

2. Samsung objects to each interrogatory to the extent it seeks to impose upon Samsung duties and/or responsibilities greater than those imposed by the Federal Rules of Civil Procedure, the Local Rules of this Court, any applicable orders of this Court, or any stipulation or agreement of the parties.

3. Samsung objects to Defendants' definitions and instructions to the extent they seek to impose upon Samsung duties and/or responsibilities greater than those imposed by the Federal Rules of Civil Procedure, the Local Rules of this Court, any applicable orders of this Court, or any stipulation or agreement of the parties. Samsung further objects to Defendants' definitions and instructions to the extent they purport to alter the plain meaning and/or scope of any specific interrogatory, on the ground that such alteration renders the request vague, ambiguous, overbroad, and uncertain.

4. Samsung objects to Defendants' definitions of "Samsung," "you," and "your" to the extent that those definitions include persons or entities other than Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., Samsung Telecommunications America General, LLC, Samsung Semiconductor, Inc., and Samsung Austin Semiconductor, LLC, which are not parties

to this action. Samsung further objects to Defendants' definitions of "Samsung," "you," and "your" to the extent Defendants' definitions improperly expand the scope of discovery by seeking information and documents that are not currently in the possession, custody, or control of Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., Samsung Telecommunications America General, LLC, Samsung Semiconductor, Inc., or Samsung Austin Semiconductor, LLC.

5. Samsung objects to Defendants' definition of "Samsung Products" to the extent that the definition inaccurately attributes technical properties to any Samsung product. Samsung further objects to Defendants' definition of "Samsung Products" as unduly burdensome, overly broad, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that it seeks information that is not relevant to the products accused of infringement in this action. Samsung further objects to Defendants' definition of "Samsung Products" as vague, ambiguous, and confusing, to the extent that it fails to adequately define terms or fails to describe the information sought with reasonable particularity.

6. Samsung objects to each interrogatory, definition, and instruction to the extent it seeks information that does not exist or is not in Samsung's possession, custody, and control.

7. Samsung objects to each interrogatory to the extent it calls for confidential and/or proprietary information of Samsung prior to the entry of a suitable protective order by the Court.

8. Samsung objects to each interrogatory to the extent it calls for confidential and/or proprietary documents or information of any individual or entity that is not a party to this action.

9. Samsung objects to each interrogatory as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor

reasonably calculated to lead to the discovery of admissible evidence, to the extent that the interrogatory seeks information unrelated to the patents asserted or the products accused of infringement in this action.

10. Samsung objects to each interrogatory as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that the interrogatory seeks information unrelated to the relevant temporal or geographic scope of this matter.

11. Samsung objects to each interrogatory to the extent that it is premature at this early stage of litigation.

12. Samsung objects to each interrogatory to the extent it calls for information in the public domain and, therefore, of no greater burden for Defendants to obtain than Samsung.

13. Samsung objects to each interrogatory to the extent that it is vague, ambiguous, or confusing, by failing to adequately define terms or by failing to describe the information sought with reasonable particularity. Samsung further objects to each interrogatory to the extent it purports to attribute any special or unusual meaning to any terms or phrases.

14. Samsung objects to each interrogatory to the extent that it is duplicative of another interrogatory.

15. Samsung objects to each interrogatory to the extent that it seeks information that Samsung is not permitted to disclose pursuant to confidentiality obligations or agreements with third parties.

16. Samsung's discovery and investigation in connection with this case are continuing. As a result, Samsung's responses are limited to information obtained and reviewed to date, and

are given without prejudice to Samsung's right to amend or supplement its responses after considering information obtained or reviewed through further discovery or objections.

SPECIFIC OBJECTIONS AND RESPONSES

INTERROGATORY NO. 1:

The identity of each item of prior art that allegedly anticipates or allegedly renders obvious each claim of the ON SEMICONDUCTOR PATENTS, and whether each item is alleged to anticipate each claim or to render it obvious (in which case identify the combination of art rendering it obvious). Each prior art patent shall be identified by its number, country of origin, and date of issue. Each prior art publication must be identified by its title, date of publication, and where feasible, author and publisher. Prior art under 35 U.S.C. § 102(b) shall be identified by specifying the item offered or sale or publicly used or known, the date the offer or use took place or the information became known, and the identity of the person or entity that made the use or that made and received the offer, or the person or entity that made the information known or to whom it was made known. Prior art under 35 U.S.C. § 102(f) shall be identified by providing the name of the person(s) from whom and the circumstances under which the invention or any part of it was derived. Prior art under 35 U.S.C. § 102(g) shall be identified by providing the identities of the person(s) or entities involved in and the circumstances surrounding the making of the invention before the patent applicant(s).

RESPONSE TO INTERROGATORY NO. 1:

Samsung objects to this interrogatory as overbroad and unduly burdensome. Samsung further objects to this interrogatory as premature. Samsung's investigation and discovery are still on-going in this matter, and the Court has yet to construe any claims of Defendants' patents. Samsung further objects to this request as calling for premature expert discovery. Samsung further objects to this interrogatory to the extent it calls for information protected from discovery by the attorney-client privilege and/or the attorney work-product doctrine.

Based upon Samsung's investigation to date, and subject to its general objections and the foregoing specific objections, see response to Interrogatory No. 2. Samsung will supplement its response to this interrogatory as discovery and Samsung's investigation in this case proceed.

INTERROGATORY NO. 2:

A chart identifying where specifically in each alleged item or alleged prior art to the ON SEMICONDUCTOR PATENTS each element of each claim is found, including for each element that such party contends is governed by 35 U.S.C. § 112(6), the identity of the structure(s), act(s), or materials(s) in each item of prior art that performs the claimed function.

RESPONSE TO INTERROGATORY NO. 2:

Samsung objects to this interrogatory as vague and ambiguous as to “A chart” and “such party.” To the extent this interrogatory requests Samsung to provide a claim chart, Samsung objects to this interrogatory as premature. Samsung’s investigation and discovery are still on-going in this matter, and the Court has yet to construe any claims of Defendants’ patents. Samsung further objects to this interrogatory as calling for premature expert discovery. Samsung further objects to this interrogatory to the extent it calls for information protected from discovery by the attorney-client privilege and/or the attorney work-product doctrine.

Based upon Samsung’s investigation to date, and subject to its general objections and the foregoing specific objections, Samsung identifies the following prior art that invalidates under 35 U.S.C. § 102 and/or 103 the claims of the ‘594, ‘644, and ‘001 patent that have been asserted by Defendants against Samsung. The following charts are based on Defendants’ interpretation of the claims as reflected in the presentations provided to Samsung. Samsung will supplement its response to this interrogatory as discovery and Samsung’s investigation in this case proceed.

The ‘594 Patent	Prior Art: US Patent No. 5,390,149 (“Vogley”)
Claim 8: A data conversion circuit, comprising:	In view of Defendants’ interpretation of this claim, Vogley discloses a data conversion circuit. “FIG. 1 is a block diagram of a data processing system including a synchronous random access memory.” (col. 2, lines 32 - 33)
a register having an input coupled for receiving parallel input data and having an output;	In view of Defendants’ interpretation of this claim, Vogley discloses a register having an input coupled for receiving parallel input data and having an output. Figure 23 discloses a register having an input for receiving

The '594 Patent	Prior Art: US Patent No. 5,390,149 ("Vogley")
	<p>parallel input data from a memory array and an output. Output registers 124 receive parallel input from the memory array 75 through an output enable gate 120 and have outputs connected to the output transfer selection gate circuit 128.</p> <p>"The output enable gate 120 is connected to eight separate output registers 124 for storing individual data bits read out from the memory array 75." (col. 14: lines 31 - 33)</p>
<p>a multiplexer having an input coupled to said output of said register for providing serial data;</p>	<p>In view of Defendants' interpretation of this claim, Vogley discloses a multiplexer having an input coupled to said output of said register for providing serial data.</p> <p>Figure 23 discloses an output selection gate circuit 128 that is connected to the outputs of the registers 124. The output selection gate circuit is a multiplexer that selects one bit of the parallel data in the registers to output serially, one bit at a time.</p> <p>Figure 2 discloses the multiplexer in the black box OMUX.</p> <p>"Referring now to FIG. 23, there is shown a block diagram of the output multiplexer OMUX and the input multiplexer IMUX arranged with selection and gating circuits for controlling transfer of data bits read out from the memory array 75 to the data bus 25 and for controlling transfer of data bits to be written from the data bus 25 to the memory array 75." col. 14: line 12 - 18)</p> <p>"In FIG. 23, converter circuit 126 converts the three least significant bits of the column address from the wrap address scrambler and multiplexer 61 into a one-out-of-eight selection code, which is applied to an output transfer selection gate circuit 128. For each of the eight output registers 124, there is an output transfer selection gate controlled by a separate one of the one-out-of-eight selection code, which is applied to control the output transfer selection gate circuit 128. The output transfer selection gates 128 are operated one at a time to allow a data bit to be transmitted from its output register to the data bus 25 in synchronism with the system clock." (col. 14: lines 33 - 45)</p> <p>"A one-out-of-M selection is made by the output multiplexer OMUX in response to control signals applied to the output multiplexer from the lower count section 59 of the column</p>

The '594 Patent	Prior Art: US Patent No. 5,390,149 ("Vogley")
	<p>address counter 52. The least significant bits of the initial column address, residing in the lower count section 59, determine which bit latched in the output multiplexer OMUX is the one-out-of-M bit to be gated through the output multiplexer to a lead in the data bus 25." (col. 5: lines 19 - 27)</p> <p>"One of those columns is selected for transmitting its bit through the output multiplexer OMUX as the initial bit of the desired sequence of bits on the data bus 25." (col. 6: lines 61 - 64)</p> <p>"The next sequential bit is transmitted through the output multiplexer OMUX from the column of storage cells of the memory thereby addressed." (col. 7: lines 22 - 24)</p> <p>"The sequential bits of data transmitted out of the output multiplexer OMUX are in a continuous stream at the rate of the system clock CLK." (col. 7: lines 43 - 46)</p>
<p>a comparator having first and second inputs and an output, said first input receiving a first control signal, said second input receiving a second control signal, said output providing a compare signal having a first state when said first and second control signals match; and</p>	<p>In view of Defendants' interpretation of this claim, Vogley discloses a comparator having first and second inputs and an output, said first input receiving a first control signal, said second input receiving a second control signal, said output providing a compare signal having a first state when said first and second control signals match.</p> <p>Figure 2 discloses a timing and control module 42 that takes as inputs a first control signal comprised of RE, CE, and WE, and a second control signal CLK, which controls when the compare signals are output, and outputs the compare signal LIA, or alternatively BURST.</p> <p>"Timing and control circuit 42 of FIG. 2 is responsive to the row address control signal RE, the column address control signal CE, the write signal WE, the burst signal BT, the burst direction signal +/-, the wrap select signal WP, the wrap-type signal WT, the wrap-length signal WL, and the system clock signal CLK for producing control signals, such as, the row and column address latching signals XALand YAL, the latch initial address signal LIA, the write enable signal WEN, the data-in latch signal DINL, the burst control signal BURST, and the wrap control signal WRAP." (col. 12: line 62 - col. 13: line 4)</p>

The '594 Patent	Prior Art: US Patent No. 5,390,149 ("Vogley")
	<p>“Control signals, produced by the digital processor 20 and transmitted by way of the control bus 60 to the synchronous memory 30 include a row address control signal RE, a column address control signal CE, a write signal WE, a burst signal BT, a burst direction signal +/-, a wrap select signal WP, a wrap-type signal WT, a wrap-length signal WL, and others. Control signals may also be transmitted from the synchronous memory 30 to the digital processor 20.” (col. 3, lines 50 - 58)</p> <p>“In the timing and control circuit 42 of FIG. 2, all of the signals from the control bus 60 are gated by the system clock signal CLK on lead 67 so that all control signals internal to the synchronous random access memory 30, such as, the signals XAL, YAL, LIA, WEN, DINL, BURST and WRAP are synchronized with the system clock signal CLK.” (col. 13: lines 5 - 11)</p>
<p>a down counter responsive to said compare signal for initializing a count value and responsive to a clock signal for counting down to generate a transfer data signal having a symmetric duty cycle to enable transfer of said parallel input data to said register.</p>	<p>In view of Defendants' interpretation of this claim, Vogley discloses a down counter responsive to said compare signal for initializing a count value and responsive to a clock signal for counting down to generate a transfer data signal having a symmetric duty cycle to enable transfer of said parallel input data to said register.</p> <p>During the burst read down operation, UPPER Count 52 in Fig. 2 functions as a down counter responsive to a clock signal for counting down. “Referring now to FIGS. 7 and 2 for a synchronous burst read-down operation, the only difference in the control signals is that the burst direction signal +/- is a low level to signify that the count in the upper and lower count sections of the column address counter 52 is decremented in response to each cycle of the counting clock COUNT.” (col. 7: lines 58 - 64)</p> <p>UPPER Count is responsive to LIA to load the initial address. “As shown in FIG. 2, a gate 51 is provided for transferring the initial column address 52 in response to the load initial address signal LIA.” (col 7: lines 4 - 8) “In response to the load initial address signal LIA, the most significant bits of the initial column address are gated through gates 51 into the upper count section 58 of the column address counter 25 while the least significant bits of the initial column address are gated</p>

The '594 Patent	Prior Art: US Patent No. 5,390,149 ("Vogley")
	<p>into the lower count section 59 of the column address counter 52." (col 6: lines 52 - 58)</p> <p>FIG 2 discloses a transfer data signal: signal passing from UPPER COUNT 52 through GATE 53 and COLUMN ADDRESS DECODER 54 to MEMORY ARRAY 75. "The most significant bits of the initial column address are applied from the upper count section 58 through a gate 53 to the column address decoder 54 for selecting M columns of storage cells of the memory array, from which data are to be read out. These most significant bits of the column address are decoded by the column address decoder 54 to enable a block of M columns of storage cells in the memory array 75. Data bits are read from a group of M storage cells, determined by a part of the decoded column address, i.e., the decoded most significant bits of the column address. These M data bits are transferred in parallel from the memory array 75 through a group of leads 55 to an output multiplexer OMUX where they are latched for output." (col. 5: lines 4 - 18).</p>

The '644 Patent	Prior Art: Data Sheet for Burr-Brown INA134/INA2134 Differential Line Receivers, published 1997
<p>Claim 6: An integrated circuit, comprising:</p>	<p>The Data Sheet discloses an integrated circuit, as described below.</p>
<p>a semiconductor package having first and second pins respectively adapted for receiving first and second data signals, third and fourth pins for respectively receiving first and second termination signals, and a supply pin coupled for receiving a power supply voltage; and</p>	<p>In view of Defendants' interpretation of this claim, the Data Sheet discloses a semiconductor package having first and second pins respectively adapted for receiving first and second data signals, third and fourth pins for respectively receiving first and second termination signals, and a supply pin coupled for receiving a power supply voltage.</p> <p>The Top View 14-Pin DIP/So-14 diagram on p. 3 of the Data Sheet illustrates first and second pins, +In A and +In B, adapted for receiving data signals; third and fourth pins, Ref A and Ref B, for receiving termination signals, and a supply pin, V- and V+, for receiving a power supply voltage.</p>
<p>a semiconductor die housed in the semiconductor package for operating from the power</p>	<p>In view of Defendants' interpretation of this claim, the Data Sheet discloses a semiconductor die housed in the semiconductor package for operating from the power supply</p>

The '644 Patent	Prior Art: Data Sheet for Burr-Brown INA134/INA2134 Differential Line Receivers, published 1997
supply voltage, and having a first load element coupled between the first and third pins to terminate the first data signal, and a second load element coupled between the second and fourth pins to terminate the second data signal.	<p>voltage, and having a first load element coupled between the first and third pins to terminate the first data signal, and a second load element coupled between the second and fourth pins to terminate the second data signal.</p> <p>The Top View 14-Pin DIP/So-14 diagram on p. 3 of the Data Sheet illustrates a resistor between the +In A pin and the Ref A pin. This resistor is the first load element coupled between the first and third pins.</p> <p>The diagram also illustrates a resistor between the +In B pin and the Ref B pin. This resistor is the second load element coupled between the second and fourth pins.</p>
Claim 7: The integrated circuit of claims 6, wherein the first and second load elements are resistors.	<p>The above claim chart for claim 6 is incorporated herein by reference.</p> <p>In the Top View 14-Pin DIP/So-14 diagram on p. 3 of the Data Sheet, the first and second load elements are resistors.</p>
Claim 8: The integrated circuit of claim 6, wherein the semiconductor die includes a receiver circuit having first and second inputs coupled to the first and second pins, respectively.	<p>The above claim chart for claim 6 is incorporated herein by reference.</p> <p>In the Top View 14-Pin DIP/So-14 diagram on p. 3 of the Data Sheet, the two operational amplifiers A and B compromise a receiver circuit first and second load elements are resistors.</p>
Claim 9: The integrated circuit of claim 6, wherein the semiconductor die includes a driver circuit having first and second outputs coupled to the first and second pins, respectively.	<p>The above claim chart for claim 6 is incorporated herein by reference.</p> <p>Figure 5 on page 9 of the Data Sheet illustrates the a driver circuit having first and second outputs coupled to the first and second pins respectively.</p>
Claim 10: The integrated circuit of claim 6, wherein the first data signal is from a first logic family, and the third pin is	<p>The above claim chart for claim 6 is incorporated herein by reference.</p> <p>Figures 3 and 4 on page 9 of the Data Sheet illustrate two</p>

The '644 Patent	Prior Art: Data Sheet for Burr-Brown INA134/INA2134 Differential Line Receivers, published 1997
coupled for receiving a first termination voltage characteristic of the first logic family.	configurations in which the third pin is coupled to receive a first termination voltage characteristic of the first logic family.
Claim 12: A method of operating an integrated circuit, comprising the steps of:	The Data Sheet discloses a method of operating an integrated circuit, as described below.
applying first and second logic signals to first and second pins, respectively, of a semiconductor package of the integrated circuit; and	<p>In view of Defendants' interpretation of this claim, the Data Sheet discloses the step of applying first and second logic signals to first and second pins, respectively, of a semiconductor package of the integrated circuit.</p> <p>The Top View 14-Pin DIP/So-14 diagram on p. 3 of the Data Sheet illustrates first and second pins, +In A and +In B.</p>
loading the first and second logic signals with first and second load elements, respectively, of the integrated circuit, where the first and second load elements are coupled to third and fourth pins of the semiconductor package to provide a programmable termination for the first and second logic signals.	<p>In view of Defendants' interpretation of this claim, the Data Sheet discloses the step of loading the first and second logic signals with first and second load elements, respectively, of the integrated circuit, where the first and second load elements are coupled to third and fourth pins of the semiconductor package to provide a programmable termination for the first and second logic signals.</p> <p>The Top View 14-Pin DIP/So-14 diagram on p. 3 of the Data Sheet illustrates a resistor between the +In A pin and the Ref A pin. This resistor is the first load element coupled between the first and third pins.</p> <p>The diagram also illustrates a resistor between the +In B pin and the Ref B pin. This resistor is the second load element coupled between the second and fourth pins.</p>
Claim 16: The integrated logic circuit of claim 12, further comprising the step of applying a power supply voltage to a fifth pin of the semiconductor package to bias the integrated circuit.	<p>The above claim chart for claim 12 is incorporated herein by reference.</p> <p>The Top View 14-Pin DIP/So-14 diagram on p. 3 of the Data Sheet illustrates a supply pin, V- and V+, for receiving a power supply voltage.</p>

The '001 Patent	Prior Art: US Patent No. 5,683,386 ("Kamikawara")
Claim 4: A method of analog trimming, comprising the steps of:	In view of Defendants' interpretation of this claim, Kamikawara discloses a method of analog trimming.
enabling conduction through a passive element in response to a first state of a control signal;	<p>In view of Defendants' interpretation of this claim, Kamikawara discloses a step of enabling conduction through a passive element in response to a first state of a control signal.</p> <p>FIG. 5A discloses passive elements 33-1 through 33-19 and 34-1 to 34-19. FIG. 5A also discloses control signals CL1 - CL19 and CR1 - CR19. FIG. 5A also discloses switches 35-1 to 35-19 and 36-1 to 36-19. The control signals control the state of the switches to determine whether conduction will pass through the passive element. When a switch is open, conduction through the passive element will be enabled.</p> <p>For example, in FIG. 5A conduction is enabled through the passive element 33-9 in response to a first state of control signal CL1 that causes switch 35-10 to be in the open state. Similarly, conduction is enabled through the passive element 33-10 in response to a first state of control signal CL2 that causes switch 35-11 to be in the open state.</p>
disabling conduction through said passive element in response to a second state of said control signal;	<p>In view of Defendants' interpretation of this claim, Kamikawara discloses a step of disabling conduction through said passive element in response to a second state of said control signal.</p> <p>FIG. 5A discloses passive elements 33-1 through 33-19 and 34-1 to 34-19. FIG. 5A also discloses control signals CL1 - CL19 and CR1 - CR19. FIG. 5A also discloses switches 35-1 to 35-19 and 36-1 to 36-19. The control signals control the state of the switches to determine whether conduction will pass through the passive element. When a switch is closed, conduction through the passive element will be disabled.</p> <p>For example, in FIG. 5A conduction is disabled through the passive element 33-9 in response to a second state of control signal CL1 that causes switch 35-10 to be in the closed state. Similarly, conduction is disabled through the passive element 33-10 in response to a second state of control signal CL2 that causes switch 35-11 to be in the closed state.</p>

The '001 Patent	Prior Art: US Patent No. 5,683,386 ("Kamikawara")
<p>activating said control signal in response to a data signal to enable and disable said conduction through said passive element, said activating step including the steps</p> <p>(a) latching said data signal, and</p> <p>(b) logically combining said data signal with a logic signal for providing said control signal; and</p>	<p>In view of Defendants' interpretation of this claim, Kamikawara discloses an activating step in response to a data signal to enable and disable conduction through the passive element.</p> <p>FIG. 5B discloses a data signal DATA and the control signals CL1 - CL19 and CR1 - CR19. Control signals CL1 - CL19 and CR1 - CR19 enable and disable conduction through the passive elements, and are generated in response to the data signal DATA.</p> <p>The activating step disclosed in Kamikawara includes the step of latching said data signal. FIG. 5B discloses that the signal DATA is latched in the shift-register 39.</p> <p>The activating step disclosed in Kamikawara includes the step of logically combining said data signal with a logic signal for providing said control signal. FIG. 5B discloses a logic signal ACONT. ACONT is logically combined with the latched signal DATA in the circuit of latches 40, 41, 42, and 43 and decoders 44, 45, 46, and 47. The result of the logical combination of data signal DATA and logic signal ACONT is the control signals CL1 - CL19 and CR1 - CR19.</p>
<p>setting said control signal to a fixed value after removal of said data signal.</p>	<p>In view of Defendants' interpretation of this claim, Kamikawara discloses the step of setting said control signal to a fixed value after removal of said data signal.</p> <p>The control signals CL1 - CL19 and CR1 - CR19 are set to a fixed value after the data signal DATA is removed. The DATA signal is removed when ACONT changes to a low level because the latch circuits 40 to 44 are only enabled to latch the data from shift-register 39 when ACONT is high. See col. 10: lines 35-38. When ACONT is low, the switches are not subject to change. See col. 10: lines 45-49. Therefore, the control signals are set to a fixed value when the data signal is removed.</p>

Samsung also identifies the following invalidating prior art with respect to claims 1 and 2 of the '827 patent under 35 U.S.C. § 102 and/or 103. Samsung will supplement its response as discovery and its investigations progress.

The '827 Patent	Prior Art: U. S. Patent No. 4,170,959 ("Aigo")
<p>Claim 1: A method of forming metallized bumps on predetermined terminal areas of a planar substrate, said bumps being of substantially uniform height across said substrate, wherein said method comprises:</p>	<p>Aigo discloses a method of forming metallized bumps on predetermined terminal areas of a planar substrate, said bumps being of substantially uniform height across said substrate.</p> <p>"This type of bump-plating apparatus is advantageously used for applying a bump-plating with gold, silver or the like on one surface of a semiconductor wafer." Col. 1: lines 10-13.</p> <p>"Therefore, the main object of the invention is to provide an apparatus for bump-plating semiconductor wafers in which plating liquid is blown up against the underside of a horizontally set semiconductor wafer, which enables to bump-plate the wafer surface with uniform thickness of the plating layer." Col. 1: lines 37-41.</p> <p>"Thus the bump-plated wafer has a uniform thickness of plated layer on the entire surface. While the prior art plating apparatus of this type, as previously described, has resulted in a thicker plating layer on outer peripheral portion than other portions of wafer surface, such variety of thickness of plating layer is considerably reduced by the arrangement of the invention." Col. 4: lines 3-8.</p>
<p>(a) providing a planar substrate having thereon a multiplicity of terminal areas;</p>	<p>Aigo discloses a step of providing a planar substrate having thereon a multiplicity of terminal areas.</p> <p>Aigo discloses a horizontally set planar wafer with multiple terminal areas of uniform height. For example, "[t]herefore, the main object of the invention is to provide an apparatus for bump-plating semiconductor wafers in which plating liquid is blown up against the underside of a horizontally set semiconductor wafer, which enables to bump-plate the wafer surface with uniform thickness of the plating layer." Col. 1: lines 37-41.</p>

The '827 Patent	Prior Art: U. S. Patent No. 4,170,959 ("Aigo")
(b) applying an electrical potential having a first electrical polarity to said terminal areas;	<p>Aigo discloses a step of applying an electrical potential having a first electrical polarity to said terminal areas.</p> <p>Figure 3 discloses cathode electrode bar 28.</p>
(c) applying an electrical potential having a second electrical polarity to an electrical terminal immersed in a container of an electroplating solution;	<p>Aigo discloses a step of applying an electrical potential having a second electrical polarity to an electrical terminal immersed in a container of an electroplating solution.</p> <p>Figure 3 discloses a mesh-shaped anode 17.</p>
(d) exposing said substrate to said electroplating solution to permit the growth of said metallization bumps on said terminal areas;	<p>Aigo discloses the step of exposing said substrate to said electroplating solution to permit the growth of said metallization bumps on said terminal areas.</p> <p>"[T]he plating liquid is blown up against the underside surface of a set semiconductor wafer S." Col. 3: lines 37-39.</p> <p>Figure 3 illustrates the horizontally set wafer exposed to the electroplating solution.</p>
(e) controlling the growth of said metallization bumps in a predetermined region of said substrate by altering the metallic ion concentration of said electroplating solution in said predetermined region;	<p>Aigo discloses the step of controlling the growth of said metallization bumps in a predetermined region of said substrate by altering the metallic ion concentration of said electroplating solution in said predetermined region.</p> <p>Aigo discloses a step of controlling the growth of bumps in predefined spaces. "Then the plating liquid is blown up against the underside surface of a set semiconductor wafer S, thereafter flowing out through spaces defined between protrusions 18 on the top periphery of plating basins 10, and falls down into container 2 from which the plating liquid returns to tank 7 through pipe line 38." Col. 3: lines 37-43</p>
(f) providing said container with an opening whose shape approximates that of said	Aigo discloses the step of providing said container with an opening whose shape approximates that of said substrate.

The '827 Patent	Prior Art: U. S. Patent No. 4,170,959 ("Aigo")
substrate;	Aigo discloses a circular shapes-container, which approximates the shape of the substrate. "The periphery of plating basin 10 is normally circular, and a plurality of equally spaced integral protrusions 18 are formed on the peripheral top of the basin." Col. 2: lines 41-44.
(g) positioning said substrate proximate to said container opening;	Aigo discloses the step of positioning said substrate proximate to said container opening. FIG. 3 discloses how the substrate is positioned proximate to the container opening.
(h) providing an inlet within said container for pumping said solution into said container, said solution exiting said container through said opening;	Aigo discloses the step of providing an inlet within said container for pumping said solution into said container, said solution exiting said container through said opening. FIG. 2 discloses with arrows how the solution exits the container through an opening. The specification also discloses how the solution enters the container through the use of a pump and exits the container through an overflow opening or pipelines connected to the container. "In operation, plating liquid in the tank 7 is introduced into sump 9 by means of pump 8. A portion of plating liquid in sump 9 overflows into conduit portion 36 and then returns to tank 7 through pipe line 37. The remaining plating liquid in sump 9 is inserted into common conduit 15 through pipe line 34 and into the respective plating basins through the respective central passages 11 and mesh-shaped anodes 17. Then the plating liquid is blown up against the underside surface of a set semiconductor wafer S, thereafter flowing out through spaces defined between protrusions 18 on the top periphery of plating basins 10, and falls down into container 2 from which the plating liquid returns to tank 7 through pipe line 38." Col. 3: lines 30-43.
wherein said metallic ion concentration of said electroplating solution is changed by:	

The '827 Patent	Prior Art: U. S. Patent No. 4,170,959 ("Aigo")
(i) in step (f) altering the size of said opening;	<p>"The bump-plating apparatus of the invention is characterized by an annular protrusion 19 extending circularly along the entire periphery of the inner peripheral surface of each plating basin 10, as shown in FIGS. 3 and 4. This protrusion 19 is preferably formed integrally with the body of plating basin 10, but may be adhered thereto by any suitable means." Col. 2: line 67- col. 3: line 5.</p> <p>"[A]s shown in FIG. 6, the protrusion 19 may be of an upwardly convergent annular plate-type member. If desired, the internal diameter of the protrusion 19 will be adjustable such as an iris diaphragm." Col. 3: lines 10-13</p>
(j) in step (g) altering the distance of said substrate from said container opening; and	<p>"Referring now to FIG. 1, a bump-plating apparatus of the invention includes a container 2 secured on a base 1 and a cover 3 which is vertically movable above the container. This cover is guided vertically with opposite flanged portions 4 thereof, openings formed in the respective flanged portions being movably engaged with relevant guide bars 5." Col. 2: lines 15- 21.</p> <p>"Also, cover 3 has the same number of holders 20 secured thereto in position corresponding to the respective basins." Col. 3: lines 25-28.</p> <p>"Respective holders 20 are fixed to fitting portions 24 of the cover 3" Col. 3: lines 61-62.</p>
(k) in step (h) altering the flow rate of said solution through said opening.	<p>"As a preferable form of the protrusion, the underside 19' thereof is slant so as to form an upwardly convergent annular form, as shown in FIGS. 5 and 6, to thereby bias a portion of plating liquid internally with a reduced flow resistance." Col. 3: lines 5-9.</p>
Claim 2: The method of according to claim 1, wherein said metallization bumps comprise metal selected from the group consisting of silver and tin	<p>The above claim chart for claim 1 is herein incorporated by reference.</p> <p>Aigo discloses the use of silver to make the metallization bumps. "This type of bump-plating apparatus is advantageously used for applying a bump-plating with gold,</p>

The '827 Patent	Prior Art: U. S. Patent No. 4,170,959 ("Aigo")
	silver or the like on one surface of a semiconductor wafer" Col. 1: lines 11-13.

INTERROGATORY NO. 3:

Any grounds of invalidity based on indefiniteness under 35 U.S.C. § 112(2) or enablement or written description under 35 U.S.C. § 112(a) of any of the claims of the ON SEMICONDUCTOR PATENTS.

RESPONSE TO INTERROGATORY NO. 3:

Samsung objects to this interrogatory as vague and ambiguous as to "Any grounds" and "35 U.S.C. § 112(a)." To the extent this interrogatory requests Samsung to identify grounds for invalidity, Samsung objects to this interrogatory as overbroad and unduly burdensome. Samsung further objects to this interrogatory as premature. Samsung's investigation and discovery are still on-going in this matter, and the Court has yet to construe any claims of Defendants' patents. Samsung further objects to this request as calling for premature expert discovery. Samsung further objects to this interrogatory to the extent it calls for information protected from discovery by the attorney-client privilege and/or the attorney work-product doctrine.

Based upon Samsung's investigation to date, and subject to its general objections and the foregoing specific objections, Samsung responds as follows: Claim 9 of U.S. Patent No. 6,362,644 is invalid under 35 U.S.C. § 112(2) because it is not supported by the specification. The patent does not disclose any embodiments in which a single package includes a receiver circuit and a driver circuit. Samsung will supplement its response to this interrogatory as discovery and Samsung's investigation in this case proceed.

INTERROGATORY NO. 4:

Each claim of the SAMSUNG PATENT that SAMSUNG alleges was infringed by ON SEMICONDUCTOR.

RESPONSE TO INTERROGATORY NO. 4:

Samsung objects to this interrogatory as vague and ambiguous as to “Each claim.” To the extent this interrogatory requests Samsung to identify each claim of the ‘177 patent that has been infringed by Defendants, Samsung further objects to this interrogatory as premature. Samsung’s investigation and discovery are still on-going in this matter. Samsung further objects to this request as calling for premature expert discovery. Samsung further objects to this interrogatory to the extent it calls for information protected from discovery by the attorney-client privilege and/or the attorney work-product doctrine.

Based upon Samsung’s investigation to date, and subject to its general objections and the foregoing specific objections, Samsung asserts upon information and belief that the following claims of the ‘177 patent have been infringed by Defendants: claim 8. Samsung reserves the right to supplement or amend its response to this interrogatory as discovery and Samsung’s investigation in this case proceed.

INTERROGATORY NO. 5:

Separately for each asserted claim of the SAMSUNG PATENT, identify all ON SEMICONDUCTOR PRODUCTS, and where each element of each asserted claim is found within each ON SEMICONDUCTOR PRODUCT, and whether SAMSUNG alleges that each element of each asserted claim is literally present or present under the doctrine of equivalents. This identification shall be as specific as possible. Each product, device, and apparatus must be identified by name or model number, if known. Each method or process must be identified by name, if known, or by any product, device, or apparatus which, when used, allegedly results in the practice of the claimed method or process. For each element that SAMSUNG contends is governed by 35 U.S.C. § 112(6), the identity of the structure(s), act(s), or material(s) in the ON SEMICONDUCTOR PRODUCTS that performs the claimed function.

RESPONSE TO INTERROGATORY NO. 5:

Samsung objects to this interrogatory as overbroad, unduly burdensome, vague and ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence. Samsung further objects to this interrogatory as premature. Samsung’s investigation and discovery are still on-going in this matter. Samsung further objects to this request as calling for premature expert discovery. Samsung further objects to this interrogatory to the extent it calls

for information protected from discovery by the attorney-client privilege and/or the attorney work-product doctrine. Samsung further objects to this interrogatory as vague and ambiguous as to “shall be as specific as possible.”

Based upon Samsung’s investigation to date, and subject to its general objections and the foregoing specific objections, Samsung alleges upon information and belief that at least products NCP5331 and MC33275D3 were manufactured using the method of claim 8 of the ’177 patent. Upon information and belief, each product includes an electrical connection on a semiconductor substrate between two conductive layers that is formed between an insulating layer. Upon information and belief, these products were manufactured using a method in accordance with claim 8 of the ’177 patent. Samsung will supplement its response to this interrogatory as discovery and Samsung’s investigation in this case proceed.

INTERROGATORY NO. 6:

The priority date to which SAMSUNG alleges each asserted claim of the SAMSUNG PATENT is entitled, and a description of why.

RESPONSE TO INTERROGATORY NO. 6:

Samsung objects to this interrogatory as vague and ambiguous as to “priority date” and “description of why.” Based upon Samsung’s investigation to date, and subject to its specific and general objections, Samsung responds as follows: The claimed subject matter of United States Patent No. 5,252,177 is entitled to a filing date of April 15, 1991, the filing date of Korean priority application 1991-6024. Samsung reserves the right to supplement or amend its response to this interrogatory as discovery and Samsung’s investigation in this case proceed.

INTERROGATORY NO. 7:

Identify any apparatus, product, device, process, method, act, or other instrumentality that SAMSUNG or anyone licensed under the SAMSUNG PATENT imported into the United States or made, sold, used, or offered for sale within the United States by that SAMSUNG alleges practices the claimed invention for each claim of the SAMSUNG PATENT and state completely

and in detail each and every fact concerning any efforts taken, with respect to the SAMSUNG PATENT, to comply with 35 U.S.C. § 287, including, but not limited to, providing notice and complying with the marking provisions therein, and identify the persons most knowledgeable with any such efforts.

RESPONSE TO INTERROGATORY NO. 7:

Samsung objects to this interrogatory as overbroad, unduly burdensome, vague and ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence. Samsung further objects to this interrogatory as seeking irrelevant information. Samsung further objects to this interrogatory as overbroad, unduly burdensome, and vague and ambiguous as to “state completely and in detail each and every fact concerning any efforts taken.” Samsung further objects to this interrogatory as vague and ambiguous as to “concerning any efforts taken . . . to comply” and “most knowledgeable with any such efforts.”

Subject to its general objections and the foregoing specific objections, Samsung responds that the ‘177 patent has only method claims, and therefore the marking provisions of 35 U.S.C. § 287 are inapplicable.

INTERROGATORY NO. 8:

A list of claim terms, phrases, or clauses which SAMSUNG contends should be construed by the COURT and SAMSUNG’s proposed construction, including the identity of any claim element which SAMSUNG contends should be governed by 35 U.S.C. §112(6).

RESPONSE TO INTERROGATORY NO. 8:

Samsung objects to this interrogatory as vague and ambiguous as to “A list.” To the extent this interrogatory is asking Samsung to provide a list, Samsung objects to this interrogatory as premature. Samsung further objects to this interrogatory to the extent it calls for information protected from discovery by the attorney-client privilege and/or the attorney work-product doctrine.

Subject to its general objections and the foregoing specific objections, Samsung states that it will provide its proposed claim constructions in accordance with the scheduling order to be entered by the Court.

INTERROGATORY NO. 9:

For each SAMSUNG PRODUCT, identify (a) the internal part number(s) and any internal product identification (e.g. name, number, codes, etc.) used by SAMSUNG to identify the product; (b) the retail name(s) and any other retail product identification information; (c) the description of all component parts thereof; and (d) the manufacturing process for each.

RESPONSE TO INTERROGATORY NO. 9:

Samsung objects to this interrogatory as vague and ambiguous as to “internal part number,” “internal product identification,” “all component parts thereof,” and “manufacturing process for each.” Samsung further objects to this interrogatory as overbroad, unduly burdensome, and calling for documents that are neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence to the extent that it calls for information concerning products that Defendants have not specifically accused of infringement.

Subject to its general objections and the foregoing specific objections, Samsung will produce, in accordance with Fed. R. Civ. P. 33(d), responsive, non-privileged documents from which responsive information can be derived to the extent such documents exist and can be located after a reasonable search.

INTERROGATORY NO. 10:

State in detail each factual and each legal basis for any allegations that SAMSUNG has not directly or indirectly infringed and are not directly or indirectly infringing any claims of any of the ON SEMICONDUCTOR PATENTS, and identify all documents and evidence that relate to such allegations and all persons who have knowledge or information relating to such allegations. Such detail shall include, without limitation, a chart identifying specifically each element of each asserted claim that allegedly has not been infringed literally and/or under the doctrine of equivalents, an explanation of why each such element is not found within the ACCUSED SAMSUNG PRODUCT, and a description of how YOUR construction of each claim term pursuant to Interrogatory No. 8 supports YOUR allegation that each such element has not been infringed.

RESPONSE TO INTERROGATORY NO. 10:

Samsung objects to this interrogatory as overbroad, unduly burdensome, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that it calls for information concerning products that Defendants have not specifically accused of infringement. Samsung further objects to this interrogatory as overbroad, unduly burdensome, and vague and ambiguous as to “State in detail each factual and each legal basis” and “identify all documents and evidence that relate to such allegations and all persons who have knowledge or information relating to such allegations.” Samsung further objects to this interrogatory to the extent that it seeks premature proposed claim constructions from Samsung. Samsung further objects to this interrogatory to the extent it calls for information protected from discovery by the attorney-client privilege and/or the attorney work-product doctrine. Samsung further objects to this request as seeking premature expert discovery.

Based upon Samsung’s investigation to date, and subject to its general objections and the foregoing specific objections, Samsung responds as follows: None of Samsung’s SDRAM products meet each and every limitation of any asserted claims of the ‘594, ‘644, ‘and 001 patents. For example, with respect to claim 8 of the ‘594 patent, Samsung’s SDRAMs do not have a multiplexer that provides serial data, nor do they provide a compare signal having a first state when first and second control signals match. With respect to claims 6-10 of the ‘644 patent, Samsung’s SDRAMs do not have third and fourth pins for respectively receiving first and second termination signals. With respect to claims 12 and 16, Samsung’s SDRAMs do not have third and fourth pins that provide a programmable termination for first and second logic signals. With respect to claim 4 of the ‘001 patent, Samsungs’ SDRAMs are digital circuits and therefore do not perform analog trimming. Further, Samsungs’ SDRAMs do not set a control signal to a fixed value. With respect to the ‘827 patent, Defendants have not identified any allegedly infringing Samsung method or product made with any allegedly infringing method. Samsung will respond to this interrogatory with respect to the ‘827 patent once Defendants have provided

their infringement contentions concerning the '827 patent. Samsung further states that it will produce, in accordance with Fed. R. Civ. P. 33(d), responsive, non-privileged documents from which responsive information can be derived to the extent such documents exist and can be located after a reasonable search.

INTERROGATORY NO. 11:

State in detail each factual and each legal basis for YOUR allegations, as set forth in the Amended Complaint, that the claims of the ON SEMICONDUCTOR PATENTS are invalid for failing to comply with one or more of the requirements of 35 U.S.C. §§ 101, 102, 103, and/or 112, and identify all documents and evidence that relate to such allegations and all persons who have knowledge or information relating to such allegations.

RESPONSE TO INTERROGATORY NO. 11:

Samsung objects to this interrogatory as duplicative of Interrogatory Nos. 1, 2, and 3. Samsung further objects to this interrogatory to the extent it calls for information protected from discovery by the attorney-client privilege and/or the attorney work-product doctrine. Samsung further objects to this interrogatory to the extent that it seeks premature expert discovery. Samsung further objects to this interrogatory as overbroad, unduly burdensome, and vague and ambiguous as to "State in detail each factual and each legal basis" and "identify all documents and evidence that relate to such allegations and all persons who have knowledge or information relating to such allegations."

Based upon Samsung's investigation to date, and subject to its general objections and the foregoing specific objections, Samsung responds as follows: *see* Samsung's response to Interrogatory Nos. 1-3. Samsung will supplement its response to this interrogatory as discovery and Samsung's investigation in this case proceed.

INTERROGATORY NO. 12:

State in detail each factual and each legal basis for any allegations SAMSUNG has that ON SEMICONDUCTOR is estopped, based on statements, representations, and admissions made during the prosecution of the applications that led to the ON SEMICONDUCTOR

PATENTS from asserting any interpretation of the claims of the ON SEMICONDUCTOR PATENTS that would be broad enough to cover any of the SAMSUNG PRODUCTS alleged to infringe the ON SEMICONDUCTOR PATENTS.

RESPONSE TO INTERROGATORY NO. 12:

Samsung objects to this interrogatory as premature. Samsung's investigation and discovery are still on-going in this matter, and the Court has yet to construe any claims of Defendants' patents. Samsung further objects to this request as calling for premature expert discovery. Samsung further objects to this interrogatory to the extent it calls for information protected from discovery by the attorney-client privilege and/or the attorney work-product doctrine. Samsung further objects to this interrogatory as overbroad, unduly burdensome, and vague and ambiguous as to "State in detail each factual and each legal basis."

Based upon Samsung's investigation to date, and subject to its general objections and the foregoing specific objections, Samsung states that prosecution history estoppel precludes Defendants from asserting that any Samsung products or methods infringe any of Defendants' patents under the doctrine of equivalents where narrowing amendments or arguments relating to patentability were made during prosecution of the patents. Samsung further states that discovery in this case has just begun, and its investigations are on going. Samsung will supplement its response to this interrogatory once it has had an opportunity to study Defendants' infringement contentions and to gather and analyze the relevant technical documents pertaining to the accused products in view of the properly construed claims.

INTERROGATORY NO. 13:

State in detail each factual and each legal basis for any allegations that ON SEMICONDUCTOR is barred by the doctrine of laches from enforcing the claims of one or more of the ON SEMICONDUCTOR PATENTS.

RESPONSE TO INTERROGATORY NO. 13:

Samsung objects to this interrogatory as overbroad, unduly burdensome, vague and ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it asks Samsung to "State in detail each factual and each legal basis for any allegations."

Samsung further objects to this interrogatory as premature at this early stage of discovery.

Samsung further objects to this interrogatory to the extent it calls for information protected from discovery by the attorney-client privilege and/or the attorney work-product doctrine.

Based upon Samsung's investigation to date, and subject to its general objections and the foregoing specific objections, Samsung states that one or more of the Samsung products accused of infringement have been on the market for a period of years, yet Defendants did not assert their patents against Samsung until 2006. For example, Samsungs' DDR products have been on the market since 2000. Samsung further states that discovery in this case has just begun, and its investigations are on-going. Samsung therefore reserves the right to supplement or amend its response to this interrogatory as discovery and Samsung's investigation in this case proceed.

INTERROGATORY NO. 14:

State in detail each factual and each legal basis that SAMSUNG claims constitute a defense to willful infringement of the ON SEMICONDUCTOR PATENTS, along with all facts, witnesses and documents, that support such a contention.

RESPONSE TO INTERROGATORY NO. 14:

Samsung objects to this interrogatory as overbroad, unduly burdensome, vague and ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence, to the extent it asks Samsung to "State in detail each factual and each legal basis for any allegations" and "all facts, witnesses and documents, that support such a contention." Samsung further objects to this interrogatory as premature. Discovery has just commenced, and Defendants have not articulated any willful infringement theory despite bearing the burden of proof. Samsung further objects to this interrogatory to the extent it calls for information protected from discovery by the attorney-client privilege and/or the attorney work-product doctrine.

Based upon Samsung's investigation to date, and subject to its general objections and the foregoing specific objections, Samsung states that since it was first contacted by Defendants in 2005, Samsung has consistently told Defendants that it does not infringe Defendants' patents.

For example, Samsung met with Defendants on a number of occasions in which it provided detailed technical presentations explaining why the '594 and '644 patents were not infringed and/or are invalid. Samsung further states, as shown in the above responses, that the asserted claims of the '594, '644, '001, and '827 patent are not infringed and are invalid. Samsung further states that discovery in this case has just begun, and its investigations are ongoing. Samsung therefore reserves the right to supplement or amend its response to this interrogatory as discovery and Samsung's investigation in this case proceed

INTERROGATORY NO. 15:

State in detail the custodian information for each of SAMSUNG'S non-privileged documents that are responsive to ON SEMICONDUCTOR'S Requests for Production. Such custodian information shall include, without limitation, the name of the Custodian, the job title or job description of the Custodian, the organization with which the Custodian was affiliated, the name and job title of the Custodian's supervisor, and the corresponding production or production numbers for the document.

RESPONSE TO INTERROGATORY NO. 15:

Samsung objects to this interrogatory as overbroad, unduly burdensome, and oppressive on its face. Samsung further objects to this interrogatory as not reasonably calculated to lead to the discovery of admissible evidence and as seeking irrelevant information. Samsung further objects to this interrogatory as vague and ambiguous as to "State in detail the custodian information" and "Custodian."

INTERROGATORY NO. 16:

For each asserted claim of the ON SEMICONDUCTOR PATENTS and of the SAMSUNG PATENT, identify the skills, education, training, and/or work experience of a person of ordinary skill in the art.

RESPONSE TO INTERROGATORY NO. 16:

Samsung objects to this interrogatory as seeking premature expert discovery. Samsung further objects to this interrogatory to the extent it calls for information protected from discovery by the attorney-client privilege and/or attorney work-product doctrine.

Subject to its general objections and the foregoing specific objections, Samsung will provide its response to this interrogatory when it provides its expert disclosures under Rule 26.

INTERROGATORY NO. 17:

Describe in detail, when, how, and by whom the subject matter described in the asserted claims of the SAMSUNG PATENT was first conceived and actually or constructively reduced to practice. YOUR answer should include, but not be limited to an identification of the dates of conception and reduction to practice, an identification of each person who contributed to the conception or was involved in reduction to practice, an explanation of the specific contributions by and involvement of each person in conception or reduction to practice, and an identification of each person who can corroborate conception, reduction to practice, and/or diligence in reduction to practice.

RESPONSE TO INTERROGATORY NO. 17:

Samsung objects to this interrogatory as overbroad, unduly burdensome, vague and ambiguous as to "Describe in detail." Samsung further objects to this interrogatory as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, in that Defendants have not identified any allegedly invalidating prior art under 35 U.S.C. § 102(g). Samsung further objects to this interrogatory to the extent it calls for information protected from discovery by the attorney-client privilege and/or the attorney work-product doctrine.

Based upon Samsung's investigation to date, and subject to its general objections and the foregoing specific objections, Samsung will produce, in accordance with Fed. R. Civ. P. 33(d), responsive, non-privileged documents from which responsive information can be derived to the extent such documents exist and can be located after a reasonable search. Samsung reserves the right to supplement or amend its response to this interrogatory as discovery and Samsung's investigation in this case proceed.

INTERROGATORY NO. 18:

Identify any analysis conducted by or at the request of SAMSUNG of all ON SEMICONDUCTOR PRODUCTS, including the date or dates the analysis(es) was (were) requested and conducted, the identity of the person(s) conducting the analysis(es), and to whom the results were communicated.

RESPONSE TO INTERROGATORY NO. 18:

Samsung objects to this interrogatory as vague and ambiguous as to “analysis.” Samsung further objects to this interrogatory to the extent it calls for information protected from discovery by the attorney-client privilege or attorney work-product doctrine. Samsung further objects to this interrogatory to the extent it seeks information irrelevant to any issue in this case, rendering the interrogatory overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence.

Subject to its general objections and the foregoing specific objections, Samsung will produce, in accordance with Fed. R. Civ. P. 33(d), responsive, non-privileged documents from which responsive information can be derived to the extent such documents exist and can be located after a reasonable search.

INTERROGATORY NO. 19:

Describe in detail all facts and circumstances concerning SAMSUNG’S first knowledge of ON SEMICONDUCTOR’s alleged infringement of the SAMSUNG PATENT. YOUR answer should include, but should not be limited to, an identification of the date that YOU first learned that ON SEMICONDUCTOR had made, used, sold, or offered for sale any product that YOU contend infringes the SAMSUNG PATENT, an identification of the three SAMSUNG employees or representatives most knowledgeable regarding the facts surrounding that event, and an identification of all documents pertaining to such facts.

RESPONSE TO INTERROGATORY NO. 19:

Samsung objects to this interrogatory as overbroad, unduly burdensome, and vague and ambiguous as to “Describe in detail all facts and circumstances concerning,” “first knowledge,” “most knowledgeable regarding the facts surrounding that event,” and “an identification of all

documents pertaining to such facts.” Samsung further objects to this interrogatory on the grounds that it seeks information irrelevant to any issue in this case. Samsung further objects to this interrogatory as calling for information protected from discovery by the attorney-client privilege and attorney work-product doctrine.

Subject to its general objections and the foregoing specific objections, Samsung will produce, in accordance with Fed. R. Civ. P. 33(d), responsive, non-privileged documents from which responsive information can be derived to the extent such documents exist and can be located after a reasonable search.

INTERROGATORY NO. 20:

Describe in detail the complete factual and legal bases for any and all damages that SAMSUNG seeks from ON SEMICONDUCTOR in this action, including the type and amount of damages sought, the basis and methodology used to calculate such amount, and all facts supporting any claim that YOU are entitled to increased damages or that this is an exceptional case.

RESPONSE TO INTERROGATORY NO. 20:

Samsung objects to this interrogatory as overbroad, unduly burdensome, and vague and ambiguous as to “Describe in detail the complete factual and legal bases.” Samsung further objects to this interrogatory as premature. Discovery has just commenced and Samsung’s investigations are still on-going. Defendants have also not yet provided any damages-related discovery. Subject to its general objections and the foregoing specific objections, Samsung states that it is seeking damages of no less than a reasonable royalty, and will supplement its response to this interrogatory after it has had an opportunity to take damages discovery of Defendants.

INTERROGATORY NO. 21:

Separately for each asserted claim of the SAMSUNG PATENT, describe in detail all facts and identify all documents concerning any alleged “secondary considerations” of nonobviousness of the type described in *Graham v. John Deere* and its progeny, including but

not limited to a statement of all facts concerning any alleged “commercial success,” “long felt but unmet need,” “failure of others,” or “unexpected result” for the subject matter claimed.

RESPONSE TO INTERROGATORY NO. 21:

Samsung objects to this interrogatory as overbroad, unduly burdensome, and vague and ambiguous as to “describe in detail all facts and identify all documents concerning.” Samsung further objects to this requests as premature, in that Defendants have not alleged that the ‘177 patent is invalid for obviousness. Samsung further objects to this interrogatory to the extent it calls for information protected from discovery by the attorney-client privilege and/or the attorney work-product doctrine.

Subject to its general objections and the foregoing specific objections, Samsung will respond to this interrogatory if and when Defendants allege that the ‘177 patent is invalid for obviousness and provide contentions supporting their allegations.

INTERROGATORY NO. 22:

For each person who was substantively involved in the preparation or prosecution of the SAMSUNG PATENT, Related Patents, and/or Related Applications, identify and describe in detail each person’s involvement with the preparation and/or prosecution.

RESPONSE TO INTERROGATORY NO. 22:

Samsung objects to this interrogatory as vague and ambiguous as to “substantively involved in the preparation or prosecution” and “involvement.” Samsung further objects to this interrogatory as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information concerning patents other than the ‘177 patent. Samsung further objects to this interrogatory to the extent it calls for information protected from discovery by the attorney-client privilege and/or the attorney work-product doctrine.

Subject to its general objections and the foregoing specific objections, Samsung responds as follows: Jong-Seo Hong, Jin-Hong Kim, and Jung-In Hong are the inventors named on the

'177 patent. Robert E. Bushnell of Levy, Bushnell, Zito & Grandnetti in Washington, D.C. was the prosecuting attorney of the application that issued as the '177 patent. Samsung further states that it will produce, in accordance with Fed. R. Civ. P. 33(d), responsive, non-privileged documents from which additional responsive information can be derived to the extent such documents exist and can be located after a reasonable search

INTERROGATORY NO. 23:

Identify all litigation, prosecution, or other administrative or legal proceedings worldwide, completed or ongoing, concerning the SAMSUNG PATENT, Related Patents, and Related Applications.

RESPONSE TO INTERROGATORY NO. 23:

Samsung objects to this interrogatory as vague and ambiguous as to "litigation, prosecution, or other administrative or legal proceedings." Samsung further objects to this interrogatory as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent it seeks information concerning patents other than the '177 patent. Samsung further objects to this interrogatory to the extent it seeks information irrelevant to any issue in this case, rendering the interrogatory overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence.

Subject to its general objections and the foregoing specific objections, Samsung will produce, in accordance with Fed. R. Civ. P. 33(d), responsive, non-privileged documents from which responsive information can be derived to the extent such documents exist and can be located after a reasonable search.

INTERROGATORY NO. 24:

For all patent licenses, offers to license, settlement agreements, attempts to negotiate a license, and agreements of SAMSUNG, including but not limited to those that cite to or cover the SAMSUNG PATENT, describe for each such license agreement the parties involved, the

date of execution of the license or agreement, any royalty rates or other payment terms provided in the license or agreement, and an identification of the documents related to the license or agreement.

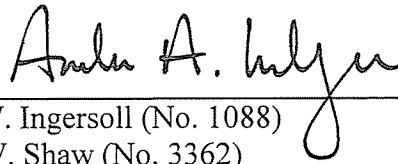
RESPONSE TO INTERROGATORY NO. 24:

Samsung objects to this interrogatory as unduly burdensome, overly broad, oppressive, and calling for information that is neither relevant to any issue in this action nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that it seeks information unrelated to the patents asserted or the technology accused of infringement in this action. Samsung further objects to this interrogatory as vague and ambiguous as to “offers to license,” “attempts to negotiate a license,” “payment terms,” and “documents related to the license or agreement.” Samsung further objects to this interrogatory to the extent it seeks information irrelevant to any issue in this case, rendering the interrogatory overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence.

Subject to its general objections and the foregoing specific objections, Samsung will produce, in accordance with Fed. R. Civ. P. 33(d), responsive, non-privileged documents from which responsive information can be derived to the extent such documents exist and can be located after a reasonable search.

Dated: May 2, 2007

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CERTIFICATE OF SERVICE

I, Andrew A. Lundgren, Esquire, hereby certify that on May 2, 2007, I caused a the foregoing document to be served upon the following counsel of record in the manner indicated below:

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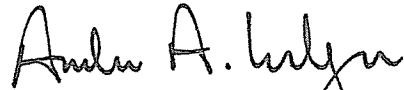
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